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BY

P. A. SILBURN, D.S.O.

MEMBER OF PARLIAMENT OF THE UNION OF SOUTH AFRICA

AUTHOR OF "THE COLONIES AND IMPERIAL DEFENCE"
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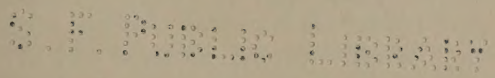

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PREFACE

THIS work has been inspired by the following passage, which appears in the preface of that great work *The Influence of Sea-Power upon History*: "Historians generally have been unfamiliar with the conditions of the sea, having as to it neither special interest nor special knowledge, and the profound determining influence of maritime strength upon great issues has consequently been overlooked."

It is not with any presumptuous ambition of endeavouring to meet the want for a history of sea-power, or any hope of being able to rectify the omission of the historians of the past so rightly deplored by Admiral Mahan in the passage quoted above, that this work has been undertaken, but rather it is an earnest endeavour to place before the public an outline of the growth of sea-power, the use that has been made of it in peace as well as in war, and the all-important part that it has taken in placing nations in the order and situation they occupy to-day.

The definite object proposed in this work is an examination of the growth of sea-power from that of the Phœnicians to that of the maritime nations of the present day, placing in relief the part sea-power has taken in the delimitation of territory among the races of the world, the determining influence it has exercised in the rise of republics, kingdoms, and empires, an attempt to show, where such is possible, the disaster which inevitably follows the neglect of the general principles of sea-power.

The efficiency attained in all departments of human progress has been brought about by the lessons derived from the history of the past, and although this applies with equal truth to the growth and efficiency of navies, yet little or no attention has been paid to the principles govern-

ing their existence, and it is mainly due to Admiral Mahan that these principles have been detected and inquired into.

The neglect of giving due weight to sea-power as a determining factor in the destiny of nations cannot with justice be laid to the blame of the historians, for if they are to chronicle events faithfully, they cannot digress into the causes of particular effects; nor are the results of sea-power sufficiently obvious to be seized upon with ease, the effect being often removed from the cause by long periods of time and then hidden by intervening events. By many historians the relationship between Portuguese sea-power and the result of the naval battle of Lepanto would not be detected. The cause was in the Indian Ocean; the effect was felt in the Mediterranean. Many land battles are recorded as decisive events in the history of nations; in numerous instances there is confusion of cause and effect owing to the dense over-growth that has occurred in intervening years. Marathon was not decisive; Salamis was. The Metaurus was prepared by Roman sea-power; Trafalgar made Waterloo possible; and thus to lay bare the principles of sea-power we have to trace back from the effect to the cause.

But whilst the writings of Admirals Mahan and Colomb have inspired the theme of this work, it is the growing indifference of a large section of the people of the British Empire towards the navy which has created their vast domain and the efficiency of the Service by which not only the Empire is kept intact, but the very independence of the United Kingdom secured, that finally determined its publication. This book has been written in the faint hope and fervent prayer that it may be of some slight service in seconding the efforts of those who are fighting to keep the British sea-sense healthy and strong, to hand down to our descendants inviolate the great estate built up by our ancestors and added to by ourselves solely through the instrumentality of British sea-power.

P. A. SILBURN.

DURBAN, NATAL,
30th October 1911.

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THE EVOLUTION OF SEA-POWER

CHAPTER I

INTRODUCTORY

SEA-POWER is a term used to express a maritime people's ability to defend, by means of a navy and its adjuncts, their maritime interests. The term may, in a wider sense, include the expressions "Sovereignty of the Sea," "Command of the Sea," and "Dominion of the Sea," and it is in the broadest sense that the writings of Admiral Mahan have familiarised us with the term.

In the following pages an attempt will be made to give an outline of the part sea-power, both in its restricted and more especially in its wider sense, has taken in influencing the history of the world. In the broad interpretation of the term, the observance of certain principles has been responsible for the position many of the nations occupy to-day; the neglect of these well-defined laws was, on the other hand, the cause of the fall and eventual decay of many nations whose future had been full of promise. The idea, if not the term itself, is as old as history: Thucydides recognised the silent workings of sea-power; Xerxes realised the importance of securing the command of the sea if he was to be successful in his invasion of Greece, and he immediately recognised the impotence of his army of invasion upon his naval defeat at Salamis; Themistocles estimated the value of sea-power as the determining factor in war even more accurately than any of his contemporaries.

To every inhabitant of the British Empire, more especially in these democratic days, the recognition of the

part sea-power has played in the creation of the Empire, and of the fact that by it alone the structure so built can stand, is absolutely essential if the British navy is to retain that strength and efficiency necessary to bear its growing responsibilities. Though the British Empire of to-day is the monument to sea-power, there are few chapters in English history that give any prominence to it, yet how insignificant that history would be but for the silent working of sea-power. Numerous volumes have been published on the Crimean War, but little is said in these of the all-important part sea-power took in its successful issue: that war would not have been possible but for the British command of the sea. Then again we find that India was saved to the Empire and to civilisation, and the destinies of some two hundred and fifty millions of people decided by the silent influence of sea-power; but for it this huge population must have been left to the ravages of intertribal wars or have been the victims of invasion by stronger neighbours. The beneficent governance of this great population, together with its modern civilisation and advancement in all the arts and sciences of peace, has only been possible by the British navy holding the command of the sea. The prosperity and importance of India stands as a tribute to British sovereignty of the seas.

The history of Japan, like that of her Western prototype, is the history of sea-power; the future of that Eastern maritime people may be read in the past of Great Britain. The analogy is striking—both island Empires with home areas approximately the same, physical features almost identical, population numbering within a million of each other, the resources of each similar—Japan is in very truth the British Isles of the East. Her position among nations to-day is solely and wholly due to the working of the principles of sea-power; a seafaring people from the dawn of their history, their independence was secured by their command of their own seas. Although as far back as the year 70 A.D. the Japanese had entered upon a vigorous naval programme and were extensive builders of ships,

yet they were content for over eighteen centuries to restrict their maritime energies to their own coasts and seas; it was then the sea-power of America, and later of Great Britain, that awakened them. The awakening stretch was indeed vigorous, and to-day, all things being carefully considered and every factor being correctly estimated at true value, Japan must be acknowledged as the second sea-power of the world.

Within the last few years there have been unmistakable signs of the most ancient of the living races, dormant for centuries, having heard the awakening tocsin from the sea-power of their neighbour. The very character of the vast population of China is being altered by the influence of sea-power, the workings of which are as beneficial and far-reaching in peace as they are potent in war. It was the sea-power of Great Britain that made secure the safe intercourse between East and West, and has made possible the rapid and remarkable strides in civilisation that have taken place, not only in India and China, but in every corner of the world.

Apart from the fact that British sea-power created the Empire as it is to-day, it has at the same time been largely, if not entirely, responsible for placing the nations of the world in their relative positions. The occupation of the United States of America by Europeans was the result of the sea-power of England; in their infancy the American Colonies were protected from annexation by France, Spain, Holland, or Portugal by the British navy, and to-day we find that the ninety millions of Americans speak the English language, by reason of the fact that the British navy held the command of the sea at the time the American nation was in the making.

True sea-power is not always aggressive; had it been so, many of the highly desirable oversea possessions of weaker sea-powers would have long ago passed into the hands of Great Britain; to-day the colonies of Spain, Portugal, and Holland are secured to those countries by the influence the British navy holds against unwarrantable aggression.

Had it been otherwise, the map of the world would have been materially altered during the last quarter of a century. Germany, appearing late on the scene as a world-power, found herself confined to Europe, or such parts of the world as the long-reigning and well-developed sea-power of Great Britain had rejected. Japan, by the same cause, has been confined to her own island and Korea. Will the power that has been responsible for the allocation of oversea territory maintain the increasing strength that will be necessary if the tenure of that territory is to be secured? British sea-power has sacred obligations to all those oversea possessions: it is responsible for settling with people, it has still to be responsible for their freedom and for their security from oversea aggression. But what has also to be remembered is, that the obligation is reciprocal—the relationship is that of parent and child; the child did not ask to come into the world, but, having been brought in, then the duty of the parent is to care for, develop, and protect it until such time as it can protect itself; honour of, and duty to, the parent on the part of the child must never waver. Each oversea possession of the British Empire brought into being by sea-power and to-day owing its immunity from naval attack, invasion, and annexation to that power, is in a position to add materially, each in its own way, to Great Britain's premier place among sea-powers. To-day British sea-power is supplied solely by the British Isles; if that power is to remain, then every inhabitant of the Empire must come to the aid of the mother-country. Many sea-powers of the past fell because their offspring failed in their duty to the parent; but in many such cases there were good and sound reasons which the complete development of sea-power, together with a more common and thorough understanding of the working of its principles, should to-day make impossible.

This work had almost reached completion when war between Italy and Turkey was declared, and up to the moment of writing little information had been received in South Africa of the progress of the naval operations. The

great naval superiority of Italy in the Mediterranean must only serve to emphasise the unvarying nature of the principles of sea-power and to confirm much that is herein contended. The naval attack on the forts of Tripoli can in no way be held to disprove the well-established principle that floating attack is impotent against well-mounted and efficiently manned modern weapons on shore. Such information as is obtainable as to the structure of the forts and the nature of the guns mounted at Tripoli goes to show that the former were built of unburnt brick and were very old, and that the guns were mostly muzzle-loaders; the few breech-loaders were of the smaller calibres. The defence was therefore not of a serious nature. At the very outbreak of the war the Turks tacitly acknowledged the Italian superior sea-power, and have not risked a naval action, the result of which must be a foregone conclusion. Here we see in the working one of the silent principles of sea-power, just as effective in the result as a naval action costing thousands of lives.

The subject this work attempts to outline would be incomplete if no reference was made to a question bearing on sea-power, and which aroused some heated controversy at the beginning of last year, viz., the Declaration of London. That the accredited representatives of the principal powers should meet together to discuss and draft rules under which naval wars of the future are to be conducted, is evidence of the humanitarian direction a large section of mankind desire the evolution of sea-power to take; whether those rules will stand the strain of war or are worth the paper they are written upon is quite another matter. General Grant, when asked to define war, said "War is Hell"; he might have gone further and said, War is Hell let loose; —and that being so, no set of rules will ever confine it. Let us remember that the more humane the ill-advised would endeavour to make a war, the longer that war must last, and the more extravagant in life and specie it will prove. The more brutal apparently a war is, the shorter its duration and the more economical in life and bullion.

The first Peace Conference met at the Hague in 1899, and the delegates drew up a comprehensive "International Convention with respect to the Laws and Customs of war on Land," with the object of lessening the severity of military belligerents. This was ratified by all the great powers. In the Anglo-Boer war which followed, 80 per cent. of the death-roll was due to disease caused by the prolongation of hostilities; both belligerents kept loyally to the terms of the Convention. It is impossible even approximately to estimate the indirect suffering caused by the prolongation of a war which a heavier fighting casualty list should have brought to a speedy termination. Whilst the fighting in the Russo-Japanese war was far more severe, and the Convention not so strictly kept, death from disease was far less in proportion than in the case of the Anglo-Boer war, and, as far as the victors were concerned, the aftermath less severe on the people.

The Declaration of London now ratified aims at making naval war more humane; indirectly it defeats its object, for if the Convention is strictly adhered to, it means that a weaker power will be able to prolong a war which should have been brought to a conclusion by decisive action. Had the concessions made to neutrals under the Declaration been in force and adhered to during our naval wars with Holland, it would have been impossible for England to have secured her position as the premier sea-power; these concessions are :—

1. The exclusion of food-stuffs and fuel from the list of absolute contraband.

2. The exclusion of the raw materials of industry from the category of contraband at all.

3. The immunity from capture of cargoes of conditional contraband shipped to a belligerent country, via neutral ports, so long as they are on a neutral vessel with a neutral destination.

4. The exclusion of the doctrine of continuous voyage from the law of blockade.

5. The provision of compensation for neutral merchants whose

vessels and cargoes have been improperly sunk by the captor, or have been captured without sufficient reason.

6. The immunity from capture of a neutral vessel which is innocently transporting individuals embodied in a belligerent's armed forces, or which is carrying despatches of a belligerent without the knowledge of any responsible person.

It is obvious that the first two concessions strike at the very root of Great Britain's sea-power. The cost of the naval war of to-morrow between great powers will be stupendous; if the Declaration is adhered to, then the principles of sea-power have been swept away, and it is possible for an inferior sea-power, with the aid of neutrals, to exhaust a power holding the command of the sea. But as sea-power is based upon might, and as no set of rules can alter the passions of man, there is little possibility of the terms of the Declaration being adhered to under the stress of war; the cost of modern naval war is so great, and its effects so far-reaching, that it is highly improbable that neutral powers would risk becoming involved in an endeavour to force two powerful belligerents to adhere to the terms of the Declaration.

The tendency to-day is to estimate the nation's sea-power by the Dreadnought standard, thus eliminating a number of more important factors. Had the Russo-Japanese war been decided by the counting of warships and the calculation of weight of metal, it would have been in favour of Russia; but sea-power is based upon the sea-sense of the people, and Great Britain's superiority is best gauged by the following figures, showing the number of steamships of 4000 tons and upwards; these figures are taken from the latest issue of *Lloyd's Register of Shipping*:—

Tonnage.	United Kingdom.	Germany.	France.	United States.
4,000–4,999	696	59	8	3
5,000–6,999	362	42	7	1
7,000–9,999	168	7	2	...
10,000–14,999 . . .	63	1	...	2
15,000 and above . .	10	3	...	...

From this table it is obvious that Great Britain has an advantage in a reserve of seamen over any possible combination of naval powers. These figures should also appeal to those who are concerned at the Declaration of London containing no provision regarding the conversion of merchant vessels into men-of-war on the high seas.

There has never been a time in the history of Great Britain when the efficiency of her navy was of such importance as it is to-day; her responsibilities are greater than they have ever been, these are daily increasing, and are not such as can be delegated. Yet, in an age of materialism, with a people devoid of experience in naval war, removed by a century from the last, we find little public interest taken in the service responsible for the nation's security and liberty and the Empire's integrity. On the other hand, there are rival sea-powers with aspirations for oversea possessions, developing at a rapid pace, and most efficiently, the one instrument by which alone they can enforce a colonial policy; these powers have recognised that success depends upon the goodwill, the intelligent interest and energy of the people. Every means is therefore taken by those powers whose interests are diverging towards that point at which they must clash with those of the British Empire, to arouse and keep alive public enthusiasm in naval policy. It now becomes the duty of British statesmen and publicists in every quarter of the Empire to direct the attention of the people to that quarter from which danger is to be expected, and to arouse in them an intelligent interest in the element and the instrument on which and by which they can alone hope to retain their security. It is not sufficient, nor does it make for efficiency in British sea-power, for the Colonies, be they big or small, to consider that the naval defence of the Empire is a responsibility of the parent country alone. The increase of the Navy Estimates for the current financial year to over £44,000,000 shows the burden being carried by the tax-payer of the parent country to maintain that command of the sea, by which alone the Empire can remain intact;

and it will considerably alleviate the irksomeness of that burden if those who bear it have an intelligent understanding of its importance, and the burden itself may be considerably lightened if the meaning of sea-power to each individually, and to all collectively, is brought home to the dwellers in our oversea possessions by their statesmen and the press.

CHAPTER II

THE DAWN OF SEA-POWER

That comparatively small sheet of water, the Mediterranean, served as the cradle for sea-power. Those principles of naval warfare, the adherence to or the disobedience of which has resulted in victory or defeat of nations, and has determined the mastery of the world for certain periods, were first demonstrated upon this inland sea.

The naval policy pursued in the Mediterranean by ancient and mediæval maritime nations was but the model upon which the same policy was worked, and has still to be worked, on a vaster scale. It was the miniature arena in which was represented in every detail all those principles of sea-power which extend to-day over the waters of the globe.

For some three thousand years navigation made little or no progress. Two thousand years before our era it is recorded that Sesostris had a fleet of four hundred long vessels, *i.e.* ships of war.

As far back as their twelfth dynasty (2000 B.C.) the Egyptians had a royal navy, and this was manned from among the military class, part of whom were specially trained for the sea. As these ships of war were propelled by man-power, and were therefore independent of the wind for manœuvring, the naval tactics used in a battle of those days varied but slightly from those in use to-day. It is of interest, and not without its lesson as illustrating that certain principles recur, to note that the Egyptian galley was fitted with the equivalent of the ram of a modern battleship in the shape of a lion's head fixed to the prow; and being covered with metal, this was capable of doing

great execution. The skilful captain of a war galley, when coming into action, manœuvred with the object of ramming his opponent amidships, the shock invariably sinking the enemy. The Romans improved upon this by making their galley rams of bronze, sharply pointed, and carrying them below the water's surface.

Like the great maritime powers which rose at later periods in the world's history, the territory occupied by the earliest maritime people, the Phœnicians, was limited in extent—a thin strip of land, barely two hundred miles long, with a varying breadth of three to eleven miles, wedged between a range of mountains and the sea. The mountain range in the rear made difficult and tedious any intercourse with the neighbouring peoples.

The long coastline and the limited area of their country brought the inhabitants in close touch with the sea, upon which they were driven to seek a livelihood, and later on use as a highway by which to hold intercourse with neighbours. But the Phœnicians were more a maritime than a naval people. Like the Portuguese in after years, they were adventurous pioneers—their discoveries benefited their rivals, their very success brought into being competitors and enemies.

Familiarity with the sea brought with it improvements in navigation and in the construction of their vessels, and longer voyages were made; but still events marched slowly, for it was only after five centuries of maritime experience that the Phœnicians passed through the Strait of Gibraltar. About 1100 B.C. they formed a trading station at Cadiz; nd thus came into contact with the more tempestuous waters of the Atlantic: we may therefore suppose this fact to be the cause of the first considerable improvement in shipbuilding, for it was about this time that the Phœnicians built the biremes; these were at first comparatively short vessels, but were decked, the rowers working in the hold seated at two elevations.

By the seventh century before our era, the Phœnicians had secured the command of the then known seas, not

by virtue of naval actions, but rather by a happy combination of conditions which placed in their hands the maritime commerce of the then limited world; and it was this command of the seas which stood them in good stead when the Assyrians endeavoured to conquer their country. In 725 B.C. Shalmaneser IV. succeeded in crossing the mountain range with a large army and overran Phœnicia, but the inhabitants took to the sea and found temporary refuge with their firmly established colonies, and as the invader could make no impression upon the island of Tyre since he was destitute of a navy, he was forced to conclude peace and withdraw. But he had discovered that in sea-power a new principle in the conquest and retention of countries had arisen, and he was quick to realise its full significance; for Shalmaneser, by threats and diplomacy combined, succeeded in winning an active alliance with the Phœnician cities of Akko, Sidon, and Palætyrus. These renegade Phœnician cities supplied Shalmaneser with a navy consisting of sixty ships manned by Assyrians, but officered by Phœnicians. The result of this naval expedition against the island of Tyre serves to illustrate another invariable principle upon which sea-power rests—the characteristic of seamanship. The moral effect and prestige which this factor carries with it is twofold—the lack of, or inferior, seamanship, apart from its direct disadvantage in naval tactics, has a disheartening and despondent effect upon the personnel of the fleet; wherever and whenever it exists it is felt and fully realised, perhaps to an exaggerated extent. A fleet inferior in numbers with a confidence in its seamanship despises the foe, for it firmly believes it to be inferior to itself in this quality: such a fleet entering battle confident of victory at the outset, has more than half won before the fight has commenced. The Assyrians in their naval attack upon the island of Tyre felt their inferiority in seamanship, and the Phœnician officers in command of them, knowing the efficiency of their own countrymen, could have had little confidence in their expedition. The Phœnicians of Tyre, confident in their own ability as seamen, despised their

assailants and considered a small squadron quite sufficient to defeat them. They met the sixty vessels of the enemy with a fleet of twelve, and fearlessly engaged in a sea fight against such odds as are almost unexampled. They completely dispersed the Assyrian fleet, and took 500 prisoners.

The Assyrians despaired of overcoming a power whose strength at sea had proved unassailable; they therefore returned to their own country, leaving behind sufficient troops to occupy the mainland opposite the island of Tyre, for the purpose of cutting off the inhabitants from water and supplies, which they had been in the habit of drawing from there; but another principle of sea-power was illustrated here—the power that holds the sea is not confined to any one point of landing, and as by this time the Phœnicians were in possession of all the islands of the Mediterranean, and had colonies along all its shores, and held the only means of communication upon the high seas, the Assyrian forces, though the most powerful land forces of the time, were powerless against this maritime people; at the end of five years the vain attempt to coerce Tyre was abandoned.

The Phœnicians became the subjects of Assyria twenty years later, owing to their neglect of another great principle in sea-power, that of unity. The disunion which existed among this people, and which was responsible for their subjection, was perhaps due to the inefficient and tardy means of communication of those days.

It did not take long for a Phœnician colony to set up its own fleet of trading vessels; these in turn called for a navy for their protection. The interests of the colony were more or less local, and as these increased the spirit of independence grew until at last the mother country and the sister colonies were looked upon as foreign towns or countries. These offshoots from the parent country of Phœnicia each set up their own kings; thus independence became complete, and the Phœnicians, instead of having one powerful fleet with a common policy by which they could with ease have retained the command of the sea, were

so split up and divided against each other that the Assyrians were able, by getting together a much inferior fleet to that possessed by the Phœnicians had that of the latter been united, to take the scattered Phœnician fleets in detail and defeat them. Phœnician sea-power from now became the instrument employed by successive nations in their wars of conquest. It was due to the adhesion of Phœnicia to Persia as a dependency that Cyprus, now grown into a sea-power, revolted from Egypt and threw in her lot with Phœnicia as a dependency of Persia. This brought together three great naval powers, Phœnicia, Cyprus, and Asiatic Greece, and thus secured the complete command of the Eastern Mediterranean. It was solely due to this naval combination that Cambyses was enabled to undertake his successful expedition against Egypt. The combined fleets accompanied his army along the coast, ascended the Nile, and, after a short blockade, forced Memphis to surrender.

We now arrive at one of those curious turning points in the history of civilisation for which sea-power is responsible. At the time of the invasion of Egypt by the Persians, Carthage, an early colony of Phœnicia, was rapidly developing into an important power. Cambyses recognised in it a potential rival for the mastery of the world, and decided, whilst in the vicinity, to subjugate the Carthaginians. With this purpose in view, he instructed the Phœnician fleet to proceed against Carthage. This they refused to do, for, they said, they were bound to the Carthaginians by solemn oaths, and, even apart from that consideration, it would be a wicked act on their part to make war upon their own children. Fearing the secession of the Phœnician navy, and together with it that of Cyprus, Cambyses wisely refrained from pushing his point. Had Carthage been destroyed, as undoubtedly she would have been in the event of the Phœnicians attacking her, all that civilising influence which in later ages she exercised in the Western world, and especially upon Rome, would have been lost. "The West would have grown up without that leaven

of Aramaic ideas which in point of fact penetrated classicism and prepared the way for that fusion of Oriental with Occidental conceptions which was ultimately produced by Christianity." [1]

The governing genius of a succession of Persian monarchs enabled Persia, essentially a land power, to bring together a number of naval states, the aggregate being a navy responsible for Persia's rise and career as a world power, and it was with the loss of the command of the sea that this Empire declined.

Phœnicia, the principal naval dependency of Persia, felt little or no disability in subjection; the conditions were light and consisted of—(1) The relinquishment of the right of making peace and war with other nations or of communicating with them diplomatically; (2) in the obligation to pay a fixed quota annually to the revenue; (3) the obligation to contribute to any great expedition in which the head of the Empire was engaged, such an amount of naval force as was fairly proportioned to that furnished by the other subject nations.

The subjection of Egypt strengthened the Persian naval power, one of the conditions being a naval contribution of 200 ships. The Persian naval power was made up of the following contributions: 300 triremes from the Phœnician cities, Egypt 200, Cyprus 150, Cilicia, Ionia, and the Greeks of the Hellespont 100 each, Caria 70, the Æolian Greeks 60, Lycia 50, Pamphylia 30, the Dorians of Asia 30, and the islanders of the Ægean 20, making a grand total of 1200 triremes. The trireme, an improvement upon the bireme, carried 200 men; these were divided into three classes, the rowers (*remiges*), the mariners (*nautæ*), and the soldiers.

Xenophon, in describing the efficiency of a Phœnician ship of the Persian period, says: "I think that the best and most perfect arrangement of things which I ever saw was when I went to look at the great Phœnician sailing vessel, for I saw the largest amount of naval tackling separately disposed in the smallest stowage possible. For a ship, as

[1] Rawlinson, *Phœnicia*, p. 191.

you will know, is brought to anchor, and again got under way, by a vast number of wooden implements, and of ropes, and sails the sea by means of a quantity of rigging, and is armed with a number of contrivances against hostile vessels, and carries about with it a large supply of weapons for the crew, and, besides, has all the utensils that a man keeps in his dwelling-house, for each of the messes. In addition, it is loaded with a quantity of merchandise, which the owner carries with him for his own profit. Now, all the things which I have mentioned lay in a space not much bigger than a room that would conveniently hold ten beds; and I remarked that they severally lay in such a way that they did not obstruct one another, and did not require anyone to look for them, and yet they were neither placed at random, nor entangled one with another, so as to consume time when they were suddenly wanted for use. Also, I found the captain's assistant, who is called 'the look-out man,' so well acquainted with the position of all the articles, and with the number of them, that even when at a distance he would tell where everything lay, and how many there were of each sort. . . . Moreover, I saw this man, in his leisure moments, examining and testing everything that a vessel needs at sea; so, as I was surprised, I asked him what he was about, whereupon he replied: 'Stranger, I am looking to see, in case anything should happen, how everything is arranged in the ship, and whether anything is wanting, or to put to rights what is arranged awkwardly.'"[1]

Twice during the reign of Darius the Persian Empire was saved by the sea-power of its dependencies. In his futile endeavour, in the year 514 B.C., to subjugate the Scythians occupying the territory which is now Russia, the army of Darius, consisting of 700,000 men, was supported by a fleet of 600 vessels, in this case chiefly manned with Ionians. The army crossed the Thracian Bosphorus upon a bridge of boats, then having conquered Thrace it came to the banks of the Danube,

[1] Xenophon, *Œconom.*, viii. pp. 11–16.

where it was joined by the fleet which was now used in transporting the army from the right to the left bank. Darius was very wisely dissuaded from dispensing with the services of the fleet at this point, as was his original intention; it was therefore left to command the Danube from a point above the head of its delta to the sea for a period of two months, at the end of which period it was to disperse. The Scythians pursued the harassing tactics followed many centuries later by their descendants against Napoleon, and with like success, for the army of Darius, pressed by the superior force of Scythian cavalry operating in familiar country under normal conditions, was compelled to abandon its baggage and retreat. In the meanwhile, the two months during which the fleet had to protect the rear of the army had expired; but the naval commanders remained at their post, displaying a remarkable loyalty to a foreign master which speaks well for their government. "Darius had reason to fear that either in obedience to his orders, or from their knowledge of his danger, the Greeks would by this time have left their post; when he found their transports still waiting for him on the opposite side, his joy and gratitude were proportioned to the greatness of the evil from which he had been unexpectedly delivered." [1] This was the first important land expedition resting upon sea-power, and it marks a distinct advance in the knowledge of sea-power by the ancients.

To what extent his empire was dependent upon sea-power was brought home to Darius a few years later (498 B.C.). In this year the Greeks of Asia revolted: Caria, Caunus, and Cyprus joined issue against the Persians, and Darius found his northern fleet in arms against him. As Egypt, Cilicia, Lycia, and Pamphylia were the only other naval powers upon which he could depend, it was clear that the fate of the Persian Empire was entirely in the hands of Phœnicia. It is reasonable to suppose that the decision now arrived at by the Phœnicians was responsible for retarding the march of progress by several centuries, for

[1] Thirlwall, *History of Greece*, vol. xi. p. 201; Herodotus, book iv. p. 141.

it gave a lease of life to Eastern supremacy. The Phœnician fleets remained loyal to the Persian Empire; a powerful navy was at once organised and convoyed a large Persian army from Cilicia to Cyprus. Immediately after landing the army, the Phœnician fleet engaged the Ionian fleet off Salamis; the Phœnicians were defeated, but the army they had transported gained a complete victory over the Cypriots; but the command of the sea was yet in doubt, and if the Persian Empire was to retain its influence as a world power, this had to be secured. The Ionian fleet, consisting of 353 triremes, was concentrated at Ladé, a small island in the Ægean, the object being, not to encounter the Persian army in the field, but to exert the whole strength of the confederacy in driving the enemy from the Ægean. The allied fleets of the Persians numbered 600 vessels; notwithstanding this superiority in numbers, the Persians, mindful of the nautical skill of the Ionians, hesitated to attack; there was therefore an interval in which the hostile fleets were watching each other. During this delay, the agents of the Persians succeeded in sowing discord among their enemy's allied fleets. Then it was that the Persian fleet sailed confidently to the attack. The Ionians met them without suspicion of treachery; but upon a pre-arranged signal at the beginning of the action the Samians and the Lesbians retired, with the result that the remaining fleets of the confederacy were defeated, the naval dependencies of Persia secured the command of the sea for their sovereign state, and the Persians were enabled to resume their policy of conquest—the means of easy transport being again opened to them. The decisive naval action off Ladé was soon followed by the fall of Miletus, which now became a Persian colony. The subjugation of Ionia was made complete, and the vessels and men became a part of the Persian navy, the best example of artificially built sea-power we have.

The impermanency of a sea-power artificially built up, as was that of the Persian, is demonstrated by an example which at the same time proves the invariableness of several

other important principles in sea-power, and also in government. The example we have now arrived at marks an epoch not alone in sea-power, but also in the history of civilisation. It marks the clear dividing line between East and West —the geographical point and the moment in history where and when the Eastern races were hurled back within their confines, and the people of the West became the dictators of civilisation.

Darius and his advisers realised that those maritime states of Greece yet independent of Persian rule must, whilst still unconquered, stand as a barrier to Persian advance westwards; by this time, too, the governing influence of sea-power was realised and appreciated by the Persian leaders, and they viewed with concern the growing maritime interests of the European Greeks; it was distinctly seen that soon these interests at sea must clash, and Darius, wise in his generation, foreseeing the inevitableness of future conflict, decided to crush these rising powers before they had made themselves strong enough to crush him. That he failed to do so does in no way condemn his policy; he, upon a larger scale but unconsciously, anticipated the consideration which actuated the statesmen of Great Britain in destroying the Danish fleet at Copenhagen, considerations which should actuate the statesmen of any sea-power where there is the slightest suspicion of its command of the sea being challenged. The chief reasons therefore which prompted Darius in invading European Greece were—(1) to sweep away any barrier to his further progress to the West; and (2) to destroy a possible rival in sea-power. With these objects in view, having specious excuses, he despatched Mardonius with a mighty armament to subdue Athens and Eretria. A large fleet was to sweep the Ægean, and to exact obedience from the islands, while Mardonius himself led the land force into Greece, and on his way subdued the Thracian and Macedonian tribes, which had not yet submitted. The fleet went no further than the island of Thasus, which it subdued, but here it met with a violent storm, which is said to have destroyed 300

vessels, and 20,000 lives. Mardonius had himself received some slight check on land by the Brygians, and therefore upon receiving the news of the destruction of his navy he had no alternative but to return to Asia; but Darius did not abandon his project, and the next year (490 B.C.) he despatched a second expedition, consisting of 100,000 troops. These were taken on board 600 triremes, together with horse transports, and sailing from the coast of Cilicia they took Naxos, and then made for the Attic coast, and landed in the bay of Marathon; here they were met, whilst still in the act of disembarking, by some 9000 Athenians, and 1000 Platæans under Miltiades. The Persians were vanquished, the defeat being so complete that the remnants of the invading force returned to Asia.

Whilst the battle of Marathon deserves a place of importance in history as marking the defeat of a superior Asiatic force, whose military powers had spread terror throughout the then known world, by a greatly inferior force of Europeans, it cannot by any stretch of imagination be considered of a decisive nature, and it is unfortunate that it has been so described.[1] The result of Marathon had no direct bearing upon Persian sea-power, and until this was broken Persia could still be able to select the time and place for future invasions. This was realised by the man who was destined to demonstrate to his contemporaries and to future generations, that the strategy in the war for world power was dependent upon the command of the sea, and that sea-power and security were synonymous. Themistocles foresaw the return of the Persians, and with such forces that resistance on land would be impossible; he realised that the only scene of action must be the sea. He therefore persuaded the Athenians to increase their navy by devoting the profits from the public silver mines of Laurion to the building, equipping, and manning of 100 new galleys; this brought the Athenian navy up to 200 vessels; and at the same time he succeeded in passing a decree, which provided for 20 triremes being built annually.

[1] Sir Edward Creasy, *Fifteen Decisive Battles of the World.*

When in 480 B.C. it became known among the Greek states that Xerxes intended to invade them, Themistocles busied himself in allaying animosity and silencing disputes among the Grecian cities and rival sections. A Congress was held at which the impossibility of defending the states by land was admitted, although an army of 10,000 men was sent to guard the Thessalian pass of Tempe and another small land force to guard the pass of Thermopylæ. Of the naval force 271 triremes were stationed at Artemisium, commanding a view of the open sea and the coast of Magnesia. Though no one has ever surpassed Themistocles in the faculty of correctly estimating the importance of sea-power, Xerxes understood as clearly as he did that the issue of the war would be decided upon the sea, and his naval arrangements and dispositions were in no way neglected. The Persian fleet which accompanied the army of invasion numbered 1207 ships of war; the army itself is calculated to have numbered 1,700,000 foot and 80,000 horse.[1] According to Herodotus, it numbered 2,641,000, while the sailors, volunteers, and servants amounted fully to the same number, making a total of over 5,000,000. This stupendous force crossed the Hellespont by a bridge of boats, and it is stated that an uninterrupted march of seven days and seven nights was necessary to cross this force. The hopelessness of stemming this irresistible tide of land invasion was early apparent to the Greeks, nor did they seriously endeavour to do so. The defence of the pass of Thermopylæ was undertaken more for the purpose of gaining time than with any belief in effectually stopping the invasion. Themistocles had succeeded in imbuing his countrymen with his own idea that Greece was to stand or fall on the sea. The combined Grecian fleet, when mustered to meet the Persians, numbered 366 vessels, of which 200 were furnished and manned by the Athenians.

In preparation for attacking the insignificant-looking Grecian fleet, the Persian navy anchored off the town of Canasthea; whilst here a violent storm arose, and, raging

[1] Thirlwall, vol. ii. p. 256.

for three days and nights, resulted in the destruction of, on the lowest calculation, 400 vessels; the lives, the transports, the stores and the treasure lost were past counting. The Greek fleet, safely sheltered during this storm, viewed with lively satisfaction nature's damage to their enemy, and in a superstitious age the omen was taken to heart and played an important part in the decisive battle which followed a few days later. The day following the storm the Greek fleet sailed out and attacked the disordered Persian navy, but the battle was indecisive, only a small portion of both fleets coming into action.

The Persian army was now in full march upon Athens, and there being no hope of defending the city against such an overwhelming force, it was decided to abandon it to the charge of its tutelary goddess, and that the men, after placing their women and children and the aged and infirm in security, should betake themselves to the ships.

The Greek troops made a stubborn stand at Thermopylæ, and it was only after the loss of some 20,000 men that Xerxes forced the pass. This gave him the key of Northern Greece. He now marched upon and occupied Athens, the flames from the burning of its temples and houses being plainly discernible by the Greek fleet now lying in the bay formed by Salamis, Ægina, and the mainland. Xerxes now ordered the whole of the Persian fleet to sail up towards Salamis, and to form in line of battle; but the hour was so late that there was only time to perform the evolution without advancing into the Straits; the battle was therefore postponed until the morrow. So great appeared the disparity of the fleets, now that they were seen in battle array, that at a council held the night before the fight, the allies of the Athenians were disposed to withdraw their contingents in order to protect the Peloponnesus or southern half of Greece, and leave Athens to her fate. It is not strange that they hesitated to hazard the fate of all Greece upon a single blow, for had Xerxes won at Salamis the whole of Europe would have been at his feet. At this critical hour, Themistocles secretly despatched a messenger

to Xerxes informing him of the proposed flight of the allies. So certain was the Persian king of victory, and so anxious to make it decisive by a total destruction of his enemy's navy, that he did exactly what Themistocles expected. Upon receipt of the latter's intelligence, he ordered a portion of his fleet to be drawn in a line across the north of the Strait, thus effectually closing the passage by which the allies intended to retreat. On learning of the manœuvre of the Persians, the Greeks realised that they were in a trap, and that the only thing left for them was to fight. At daylight the battle commenced, and was of the most desperate character. The Greeks awaited in close order the advance of the Persians in the Straits, which in the narrowest part are no more than a quarter of a mile wide. With the Persian advance, the Greeks backed their galleys until they saw the enemy cramped within the small space, which permitted only a small part of his force to be brought into action. At the moment of greatest crush an Athenian vessel dashed forward and engaged one of the Persians. This was the signal for a general engagement. The heterogeneous navy of the Persians exerted their utmost efforts, for they were fighting under the very eye of Xerxes seated upon a throne erected for the purpose of viewing the battle on one of the heights of Ægaleos, overlooking the bay of Salamis ; but the valour of the Greeks was cooler and more deliberate—the greater part of the fleet belonging to Athens, the excellent discipline of the Athenians pervaded the whole. The first onslaught of the Greeks threw their enemy into confusion and took away their presence of mind. The Persian vessels, and especially those placed in the van, were larger and stood higher out of the water than those of the Greeks, and were therefore more exposed to a stormy breeze which regularly blew up the channel at a certain time of day. The Persian vessels were turned by the wind and the waves, and their sides were exposed to the attack of their enemy's prows. The van becoming embarrassed, the confusion was made more complete by the pressure from the rear, for each nation represented in this navy was anxious

to signalise itself in the presence of the king, and therefore pressed forward to the scene of action, and collided with their own allies. Some of the Phœnicians, whose galleys had been disabled by the shock of some Ionian triremes, went on shore; all order was lost. Egyptians, Phœnicians, Cilicians, Ionians, and Cyprians became hustled together; orders given in different languages were unintelligible; each vessel had therefore to act independently. The Greek squadrons still retained their order and discipline, and were able to strike compactly where they saw confusion reigning. Although the battle was decided at the first onset, which had thrown the unwieldy armament into disorder, from which it could never recover and to which so many causes contributed, it was some time before the resistance of the mass, whether active or inert, was ultimately overcome, and night had set in before the remnants of Xerxes' mighty armada took refuge in Phalerum. The losses in this battle are variously estimated at from 200 to 500 Persian vessels. The Greeks do not appear to have lost more than 40 vessels.

Xerxes now realised that the victory at Salamis gave the Greeks the command of the sea, and therefore his line of communication via the Hellespont was liable to be cut. The same night therefore he issued orders to the remainder of the fleet to make for the Hellespont with all speed, to guard the bridges till his arrival. The demoralisation of the defeated navy is evidenced by an incident which is recorded as having happened on the way to the Hellespont on the night following the battle. As the fleet was sailing in the dark by Cape Zoster, the commanders were deceived by the appearance of some rocky islets which are scattered near the coast, and taking them for Grecian vessels, the fleet dispersed in different directions panic-stricken. About noon on the following day the Greeks received information of the departure and destination of the Persian fleet. They then gave chase, but having proceeded as far as Andros without overtaking it, they held a council of war. The Athenians were anxious to proceed to the Hellespont to

destroy the bridges and intercept the return of Xerxes, but their allies argued "that men driven to extremities often pluck up a courage to which they would else have been strangers." The pursuit was therefore abandoned.

The demoralisation of the defeated navy quickly spread to the army—the splendour, the pomp, the luxury, the waste of the triumphant advance were exchanged for disorder, distress, want, and disease in a panic-stricken retreat to the Hellespont. The retreat from Thessaly to the Hellespont occupied forty-five days. The bridges had been broken up by foul weather, but the fleet had had time to somewhat recover and refit, and was able to carry the army over the Abydos. In the fate which overtook Xerxes' invasion of Europe we have the most convincing evidence of the subordination of the land to the sea: the army in its skirmishes, battles, and sieges was on all occasions successful; it even stormed, captured, and razed the capital; yet this all-conquering army, not beaten on its own battlefield, fled the country demoralised and panic-stricken as the result of a battle fought on the sea; no army beaten in battle experienced a more disordered or disastrous retreat than did the Persian host after the naval battle of Salamis. But though the main army—the army of invasion—fled the country, Xerxes was possessed of sufficient military genius to leave an army of occupation of 300,000 veterans under the command of his most able general, Mardonius. For two years this general endeavoured to again conquer the states of Greece, released by the battle of Salamis from the Persian yoke. Salamis had instilled an unconquerable confidence among the Greeks, and the logical complement of the naval victory took place at Platæa two years later, when the army of Mardonius was defeated by an inferior numerical force of Greeks, and the Persians were finally expelled from Europe.

Salamis was the first naval battle of which records have been handed down to enable a sufficiently close study, and to discover a distinct advance in naval tactics. Both the Persian and Greek navies used squadrons of light vessels for scouting.

On the Persian side we see that there was a well-ordered formation, that both line and column were familiar evolutions. The Greeks demonstrated at Salamis their maritime, as well as their fighting skill, and it was mainly due to an apparently well-organised system of signalling, by which their vessels worked in unison, that the victory was theirs. Weight here, as in all succeeding naval actions, appeared to tell, for we find that the Greek vessels, though much lower in the water, were heavier, and that they made deadly use of the ram.

It was but to be supposed that owing to the prominent part taken by Athens in repulsing the Persian invader, that many of the Greek maritime states should recognise her as their leader; yet prior to Salamis Sparta had been so recognised.

Themistocles, having demonstrated to his countrymen that their security in future must rest upon sea-power, did not remit his strenuous efforts to build up an all-powerful navy, and to secure for Athens the command of the sea. He recognised the weakness of the bonds holding the Greek states together; each state had set up its own standard of nationalism, there were all the elements of future bitter strife, and he realised that diplomacy alone would not unite these several states, fast drifting into independent and weak nationalism, into an all-powerful nation; but that by making the Athenians supreme at sea, diplomacy might be effectually backed by force. By 457 B.C. the Athenian navy had increased to such strength as to enable them to send a fleet of 200 vessels in an unsuccessful expedition against Egypt; this naval force numbered 40,000 men. At the same time, there were Athenian squadrons on the coasts of Phœnicia and Cyprus, and a home fleet of sufficient strength to enable her to defeat her Peloponnesian enemies at Cecyphalæ and Ægina, capturing 70 vessels in the last engagement. It is estimated that at this time the Athenian fleets must have been manned by at least 100,000 men, or a number just equal to that now manning the British navy, if we exclude from the latter the marines.

It was in the year 457 B.C. that that which Themistocles had foreseen came to pass. Several of the Peloponnesian states, from various causes, principally fear of her dominance, made war upon Athens. Like England many centuries later, Athens sought conquests abroad, and repelled enemies at home. It was under such conditions—the continual call upon the energies and resources of her citizens, the stern discipline of necessity—that her sea-power grew and strengthened. Her tenacity of purpose has only been equalled in modern times by Great Britain and Holland. Sooner than yield or withdraw from any of their expeditions, the Athenians refused to recall a single soldier from Ægina or from abroad to defend Megara against an army sent by Corinth; the attacking force was repulsed by the lads and the old men who had been left to guard the city.

The great Peloponnesian war broke out in 431 B.C. Sparta, at the head of nearly all the Peloponnesian states, together with the Bœotians and some of the other Greeks beyond the isthmus, endeavoured to reduce the power of Athens and to restore independence to the Greek maritime states, who were the subject allies of Athens. In the early stages of this war the Peloponnesian armies repeatedly invaded and ravaged Attica; but Athens, since the Persian invasion, and by the military genius of Themistocles, had made herself impregnable, and her fleets were now able to secure for her the dominion of the sea. But it was destined that the sea-power of Athens should be broken, and again we find the course of history diverted through a naval battle.

The geographical conditions of Athens, as of other Greek states on the mainland, were favourable to the training of a maritime people; but only by inducement, and not by necessity, do they take to the sea, as is the case of an island people. Hence islanders are by nature a maritime people; those from the mainland are only so artificially. The Greeks and Phœnicians who had colonised Sicily occupied the coasts of this island. They had got together a large mercantile marine; for, situated in

the centre of the Mediterranean, it became an emporium for trade between the East and West. The ancient city of Syracuse was at the time chiefly built on an arm of land which projects into the sea on the eastern side of Sicily, between two bays, one of which was called the Bay of Thopsus, while the other formed the great harbour of the city of Syracuse. A city built close to the sea, like Syracuse, was impregnable except by the combined operations of a superior hostile fleet and a superior hostile army. Syracuse was confident that her size, her population, military and naval resources, were such as to forbid another Greek city or other enemy sending a sufficient armament to menace her with capture or subjection; but Athens viewed the rise of the Greek colony with apprehension, and, having concluded a nominal truce for thirty years with Sparta, considered her forces at liberty to crush Syracuse. The growing commercial rivalry between the colonies and the parent states of Greece was another important factor which actuated the expedition against Syracuse.

In the spring of 414 B.C. the Athenian navy was holding the harbour and adjacent seas, and an Athenian army had defeated the colonial troops and cooped them up within the city. The Athenian fleet consisted of 134 vessels, with a number of storeships. It was solely due to the demagogues, who at this time were leading the democratic government of Syracuse, that this state of almost fatal unpreparedness existed at the time of the invasion. The populace had listened to the popular orators—men who placed self-interest before country, politicians of expediency. Thanks to Thucydides, the speech of one of these political leaders is preserved to us; and one can recognise in it the very sentiments often expressed in the House of Commons of Great Britain, and in many of the British Colonial Parliaments to-day, when the question of invasion is brought forward by men who have the security of the British Empire at heart, and whose training, ability, and patriotism enable them to warn with authority.

The Syracusan politician, Athenagoras, told his country-

men to dismiss with scorn the visionary terrors which a set of designing men among themselves strove to excite, in order to get power and influence thrown into their own hands. "Even if the enemies were to come so distant from their resources, and opposed to such a power as ours, their destruction would be easy and inevitable. Their ships will have enough to do to get to an island at all, and to carry such stores of all sorts as will be needed. They cannot therefore carry, besides, an army large enough to cope with such a population as ours. They will have no fortified place from which to commence their operations, but must rest them on no better base than a set of wretched tents, and such means as the necessities of the moment will allow them; but in truth I do not believe that they could even be able to effect a disembarkation. Let us, therefore, set at naught these reports as altogether of home manufacture; and be sure that if any enemy does come, the State will know how to defend itself in a manner worthy of the national honour." [1]

But there were those in Syracuse who had mastered the far-reaching effects of the principles of sea-power, if properly applied; and Hermocrates strenuously advocated the immediate equipping of a strong fleet, the strongest which they could collect with the assistance of their Sicilian allies, to be sent victualled for a two months' voyage to Tarentum. If it arrived there before the Athenians had crossed the Ionian Gulf, they might find an opportunity, on a friendly coast, of assailing the invading armament, and of weakening and distressing it, even if they did not strike a fatal blow; but he thought it still more probable that, by the boldness of the movement, they would so confound the enemy, who expected no resistance, that he would be detained until the sailing season was over, or would abandon the expedition altogether.

But Hermocrates was so far from being able to carry this vigorous method, that a large party of the Assembly persisted in treating the rumour as incredible. The

[1] Thucydides, lib. 10, sec. 36 *et seq.*, Arnold's edition.

Athenians, however, invaded Syracuse, and secured a landing. Had they acted promptly, they would have carried the city; instead, they wasted a year in desultory operations in other parts of the island, and the three Athenian generals were at variance among themselves. The Athenians contented themselves with the throwing up of earthworks, with the object of sapping the city. In the meantime their navy was suffering from inaction, and the vessels were becoming leaky, and were in urgent need of refitting. It was therefore decided to despatch a new fleet from Athens, equal in all respects to the first. Upon the Syracusans hearing that the new fleet had been despatched under Demosthenes, an Assembly was called for the purpose of urging an immediate naval attack. The established reputation of the Athenians for nautical skill made it difficult to rouse the Syracusans to undertake what seemed an impossible feat. Eighty ships, however, were manned. It was arranged that thirty-five should advance from the Great Harbour, while the rest sailed round from the lesser harbour on the other side of the island to join them. This double movement would, it was believed, distract the Athenians; and further, the main design of Gylippus was to surprise their forts on Plemyrium. The Athenians hurriedly manned sixty vessels, and with twenty-five engaged those of the Syracusans in the Great Harbour. The rest sailed out to meet the other squadron. The battle commenced at the same time at both points. While the Athenian troops from the forts on Plemyrium crowded into the shore to witness the naval action, the Syracusans stormed and captured all three of these. The sea-fight at first inclined against the Athenians. They were giving way in the Great Harbour, and the forty-five Syracusan vessels forced a passage through their opponents and sailed in. This temporary success threw them into disorder, and exposed them, while they were entangled together, to a renewed attack from the Athenians, putting them to flight, eleven of their vessels being sunk. This victory was in itself little better than a defeat, for a fresh difficulty now arose

in the introduction of supplies to the fleet now that the enemy's ships were stationed at Plemyrium, the forts of which were also held.

The Syracusans, hearing of a convoy being on its way from Italy to the enemy, immediately despatched a squadron of eleven vessels, which intercepted and destroyed most of the vessels.

Several sharp encounters took place in the Great Harbour, where the Athenians attempted to destroy a stockade which the Syracusans had formed for the shelter of their ships in front of the old docks.

A great vessel of burthen, upon which were mounted wooden towers, was moored alongside of the stockade, to cover the operations of a number of parties in boats, which either forced up the piles by means of cranes or windlasses, or sent down divers to saw them in two. The Syracusan navy was considerably strengthened by the arrival of a Corinthian squadron. As it was, most of the officers on the vessels of Syracuse were Corinthians. These now insisted upon the strengthening of the vessels' prows, with the object of ramming the enemy, as, owing to the limited sea-room in the Great Harbour, the Athenians would be unable to manœuvre so as to ram their enemy broadside, and would therefore have to meet him bow on. The Syracusan fleet now numbered eighty vessels; the bows of these had been especially strengthened. Before attacking the Athenian navy lying in the Great Harbour, the Syracusan admiral anchored a line of merchant ships at intervals of 200 feet in front of the stockade, which had been formed as an inner part for the reception of the fleet. The object was to form a retreat for any vessel which might be pressed by the enemy. The passages between the merchantmen were guarded by projecting beams, which supported heavy weights, ready to be dropped upon the enemy should he pursue. It was not until the Syracusans attacked, without attempting any other manœuvres, that the two fleets met bow on. The solidity of the Syracusan bows overpowered those of the Athenians. The light troops on

the decks of the anchored merchantmen galled the Athenians with their missiles, and they were harassed by a continual discharge from a multitude of boats in which the Syracusans came round them, impeding the action of the oars and picking off the seamen. After a determined struggle the Athenians were put to flight, seven of their vessels were sunk, and many were disabled. A few days after this battle, the new fleet from Athens, consisting of seventy-eight vessels, arrived, and the campaign for the conquest of Syracuse was resumed with deadly earnest; but the success which had attended the Syracusans in their naval engagement had instilled a great confidence in them, and a contempt for the naval ability of their enemy. They already considered themselves a naval power, and this belief grew into a conviction, which in itself was worth many fleets to them. They therefore welcomed rather than dreaded the reinforcements of the Athenians, as being so many more ships to be captured. For a period of two months the Syracusans contented themselves with harassing the Athenians by land. This they did with some effect; and the latter suffered doubly from unexpected attacks and from the ravages of sickness. The Syracusans now considered the time fit for a decisive naval engagement. The Athenian navy was still in a situation where its very magnitude, too large for the space to which it was confined, would turn to the Syracusan advantage. The Syracusans attacked with seventy-six vessels, and were met by eighty-six Athenian vessels. Apparently sickness and losses in the land battles had so depleted the Athenian forces that they were unable to man a greater number.

In the direct shock of the two centres of the fleets upon meeting, the Syracusans retained their superiority, which they had gained by their mechanical contrivances, by the number of troops which filled their decks, and by their flotilla of boats acting in immediate support. Eurymedon, commanding the Athenian right, endeavoured to turn the enemy's left, and moved away from the centre toward the shore. Before he could complete the evolution, the Syra-

cusans, successful in the centre, turned against him with an overwhelming force, whilst he was still confined in a corner of the harbour, and destroyed almost the whole of his division. The admiral was himself killed. This loss was the signal for the flight of the remainder of the Athenian line. The panic became general. The greater number of the Athenian vessels could not even regain their station, or shelter themselves behind their line of merchant vessels, but were driven to the nearest points of the shore. Here they were met by Syracusan soldiers, who cut them off as they landed, and secured the ships as they ran aground; but the Athenian army routed the enemy, and rescued the remainder of their navy. In this action eighteen Athenian vessels, with all their crews, had been destroyed.

After this victory the Syracusans had but one fear, and that was the flight of their enemy. They were now masters of the harbour, and immediately closed the entrance by a line of galleys anchored broadside on, and then made preparations for a final battle. The Athenians decided to man all the galleys they could bring into action, with which they would endeavour to force their way out of the harbour. Accordingly, the remains of the two armaments were collected, and, including some galleys which were scarcely seaworthy, numbered 110 vessels. The crews were made up from the serviceable part of the land force. The Athenians no longer relied upon their naval tactics. There was no room for manœuvring within the crowded harbour; they therefore decided to revert to their ancient method of fighting, long since abandoned, and rely upon the force they could bring on deck. With this purpose in view, they contrived grappling-irons to hold the enemy's vessels in the first encounter.

The Syracusans refitted and manned a fleet equal to that with which they had gained their last victory. One squadron took up a position in rear of the barrier of galleys closing the harbour entrance; the remainder of the fleet was disposed in a semicircle around the harbour. The Athenians commenced the battle, one of the most important

in the history of man, for the result was to have its effect upon civilisation. With a fierce attack upon the barrier they partially succeeded, and were proceeding to break through when they were attacked by a simultaneous movement of the whole Syracusan fleet, and the engagement became general. The scene of this engagement is the narrowest in which two such armaments had ever met. It was seldom that two vessels found room or time for a regular conflict. The stroke aimed at one was often intercepted by another, and friends and foes were entangled and confounded together in inextricable disorder. According to Plutarch, the shore was thronged with sightseers, who were able to discern every different and unexpected turn the battle took; and the tumult of this remarkable sea-fight was heightened by the shouts of the crowd lining the shores. At last the Athenians broke and made for the nearest land, chased by the victors. The Athenians lost fifty vessels out of their 110, and the Syracusans twenty-five. The reasons ascribed for the Athenian defeat are lightly touched upon by Plutarch: "The Athenians suffered not more harm from the enemy than they did from their own order of battle, and the nature of their armament. Their ships were all crowded together, and were heavy and unwieldy besides, while those of the enemy were so light and nimble that they could easily change their situation and attack the Athenians on all sides. Add to this, that the Syracusans were provided with a vast quantity of stones, which seldom failed of their effect, wherever discharged, and the Athenians had nothing to oppose them but darts and arrows, the flight of which was so diverted by the motion of the ships that few of them could reach the mark. The enemy was put upon this expedient by Ariston the Corinthian, who, after he had given great proofs of his courage and ability, fell the moment that victory was declaring for the Syracusans." [1]

True perspective can only be obtained by time; hence the significance of the overthrow of the Athenian sea-power

[1] Plutarch's *Lives*, "Nicias."

at Syracuse was not grasped at the time. Had the Athenian expedition against Sicily proved successful, it is doubtful whether Rome would ever have risen above an obscure state, for the energies of Greece would have been exerted, during the next century, in the West as well as in the East. Greece, and not Rome, would have come into contact with Carthage. Hellenic manners and the Greek language would have left their impress upon those nations which we now recognise as of the Latin race, but which might, but for the eventful battle of Syracuse, have been known as of the Hellenic race. To-day the laws of Rome are recognised as the foundation of the laws of the civilised world, and the overthrow of the sea-power of Athens made this possible; otherwise the laws of Athens would have been the basis of our laws of to-day.

Upon the news of the defeat of the Athenian navy reaching Greece, many of her subject allies revolted. In 405 B.C. the last Athenian fleet was destroyed by Lysander at Ægospotamos, and Athens was closely besieged, to surrender the following year. This was the end of the Peloponnesian war. By this time it was recognised that sea-power was the governing factor in war, where the territory of one of the belligerents was accessible to the sea. It was further recognised that war between two nations occupying a hinterland influenced but slightly, if at all, the course of civilisation.

The period of Athenian supremacy at sea may be taken as the dawn of sea-power.

CHAPTER III

THE RISE OF SEA-POWER

It has been seen in the preceding chapter that area is an insignificant factor in determining the importance or unimportance of a country. This is solely governed by the character of its people, which is more finely tempered by the struggle for existence.

The people responsible for the creation of sea-power occupied territory limited in size, in the case of Phœnicia barely the area of England's smallest county. Attica, who when her sea-power was at its zenith employed as many seamen in her navy as man that of Great Britain to-day, was a state no larger than the English county of Surrey. As we proceed with our investigations of this subject, we will become more and more impressed with the fact that sea-power has sprung from people assigned in the first place but a small space of the earth's surface upon which to dwell; their influence on the ocean has grown either from seeking an outlet for surplus population or for markets for surplus commodities.

It will be noticed, likewise, that no people indigenous to an extensive territory blessed by nature with fertile lands and an equable climate, have ever risen to a prominent position at sea, but have more often become the subject people of a sea-power, sprung perhaps from some sea-girt group of islets of barren coast belt.

The important developments in sea-power which occurred between its dawn and its firm establishment as a principle governing the result of war, were due to the energies of two artificial sea-powers, and resulted from the great, occasionally interrupted, and prolonged struggle between Europe and Africa for the Empire of the known world. Rome and

Carthage had both benefited from the lessons left them by Phœnicia and Athens; they had themselves felt directly or indirectly the strength of these sea-powers. The struggle between Rome and Carthage was from the first a sustained effort on the part of one to gain, and the other to keep, the command of the Western Mediterranean.

Carthage, founded by the maritime enterprise of Phœnicia, cherished with pride the naval traditions of her mother country and was ever ambitious to emulate these. Situated in the centre of the Mediterranean, the extent of the Carthaginian commerce took in all the known world. The Carthaginians inherited the trading instincts of their ancestors, and they made themselves the factors and agents of all nations, and their mercantile marine became supreme, so that Carthage rose to be the common city and the centre of trade of all those nations which the sea separated from one another. The military power of Carthage did not rest upon the character of her people, but upon the wealth which enabled her to purchase the men and material to make such conquests as the citizens of Carthage considered of profit or as a means towards that end. Hence Carthage must be classed as an artificial sea-power.

Rome likewise was not in the true sense a natural sea-power: her geographical position prevented it. It is true that Rome was from the first a maritime city, and in the period of its greatest vigour was never so foolish or so untrue to its ancient traditions as wholly to neglect its war marine and to be content with being a mere continental power; and the reasons actuating her becoming an artificial sea-power of importance and securing for her during the most critical period of her history the command of the sea, were less sordid than those of her rival. She was at this time essentially a military power, and during her growth and the period of her perfection her conquests were made with her own subjects. The use of mercenaries was one of the first and surest signs of her decay.

Carthage was forced into creating, maintaining, and increasing a war marine by the wide extent of her maritime

enterprises in seas which were already occupied by the Phocæans, the Tyrrhenians, and the Greeks of Sicily; but she first appears as a great naval power as the ally of the Tyrrhenians against the Greeks in the battle of Alalia, 536 B.C., and from that year to the outbreak of the Punic wars her maritime supremacy steadily increased. We find her employing navies of 150 to 200 ships in her Sicilian campaigns.

A treaty made with Rome about 509 B.C. is in itself conclusive evidence that at this period Carthage was able, by holding the command of the sea, to fix the maritime boundaries of her rivals.

This treaty was as follows :—"Between the Romans and their allies and Carthaginians and their allies, there shall be peace and alliance upon the conditions: neither the Romans nor their allies shall sail beyond the Fair Promontory, unless compelled by bad weather or an enemy; and in case that they are forced beyond it, they shall not be allowed to take or purchase anything, except what is barely necessary for refitting their vessels, or for sacrifice, and they shall depart within five days. The merchants that shall offer any goods for sale in Sardinia, or any part of Africa, shall pay us customs, but only the usual fees to the scribe and crier, and the public faith shall be a security to the merchant for whatever he shall sell in the presence of those officers. If any of the Romans land in that part of Sicily which belongs to the Carthaginians, they shall suffer no wrong or violence in anything.

"The Carthaginians shall not offer any injury to the Ardeates, Antiates, Laurentines, Circaens, Tarracinians, or any other people of the Latins, that have submitted to the Roman jurisdiction, nor shall they possess themselves of any city of the Latins that is not subject to the Romans. If any of these be taken, it shall be delivered to the Romans in its entire state. The Carthaginians shall not build any fortress in the Latin territory, and if they land there in a hostile manner they shall depart before night." [1]

[1] Polybius, book iii. chap. cxi. p. 204.

The Fair Promontory was situated north of Carthage. A second and still a third treaty was entered into between those two powers, each proclaiming by its terms more emphatically than the first the superiority of the Carthaginians at sea.

The first Punic War, which lasted for a period of twenty-four years, began in 264 B.C. At its commencement Carthage held the command of the sea, and in the early stages of the war, her navy ravaged the coasts of Italy, exacting contributions from the allies of Rome, and paralysing her commerce. For three years Rome had to remain impotent under the naval depredations of the mistress of the seas, and then her citizens realised that if Sicily was to be retained and Italy protected, it was necessary to create a navy strong enough to meet the enemy in its own element, and in the year 261 the Roman fleet was reorganised, 100 quinquiremes and twenty triremes being added to the navy. It is seriously stated that the actual building and launching of this large fleet occupied but two months—the crews were trained, during the building, upon scaffolds erected in imitation of the rowing benches and decks. To obtain the maximum of fighting energy from the soldiers these vessels carried, each ship was fitted with a specially constructed boarding gangway eighteen feet long, wide enough to enable the boarders to pass two abreast. The result of the first action fought by this fleet shook the foundations of Carthage and gave that impetus to Rome's imperial ambitions which ultimately led to the fall of the one, and the realisation of her ideals by the other.

The Consul C. Duilius was given command of the newly built navy, and he immediately sailed out and met the Carthaginian fleet advancing under Hannibal from Panormus. The Carthaginians held their enemy's naval prowess in such contempt that they entered battle in some disorder, and when too late found their vessels grappled in succession, and carried by the boarders. In this battle (Mylæ) the Carthaginians lost half their fleet, fourteen ships sunk, and thirty-one captured.

Three years later, as a result of the sea fight off Tyndaris, not far from the scene of that of Mylæ, Rome secured the Lipari Islands and Malta. In the year 256 B.C. Rome decided to strike a decisive blow in Italy and drive the enemy out of Europe, and with that object she equipped a fleet of 330 vessels manned by 100,000 sailors, and embarked an army of 40,000 soldiers under the Consul M. Atilius Regulus, and his colleague L. Manlius Vulso. This armament sailed from the river Himera (Satso) on the south coast of Sicily.

The Carthaginian fleet, consisting of 350 vessels, had been closely watching for some months the coast of Sicily, and upon the Roman fleet appearing, the Carthaginians drew up in line of battle, their left resting on the coast of Ecnomus. This action is celebrated in naval history, and marks a distinct advance in sea-power as the first example of "breaking the line." The Roman fleet bore down upon the enemy in a wedge-like formation, the Consul's two ships being the apex, the horse transports in tow between the extremities of the two oblique lines, and a fourth or the reserve squadron bringing up the rear. The Carthaginian admirals were not lacking in tactical skill, and as their centre gave way before the advance squadron, their right wing swept round and took the Roman reserve in rear, whilst the left wing attacked the horse transports and drove them towards the shore. This advantage, however, was but temporary, for the Carthaginian centre had been considerably weakened, and the Roman centre had twice to deploy into line and complete the advantage gained for them in the enemy's centre. From here they returned to the relief of the two rear divisions. The defeat of the Carthaginians was complete, thirty of their vessels being sunk and sixty-four with their crews captured. The Romans had twenty-four vessels sunk but none captured. As each of the vessels carried 420 men, it will be seen that the Carthaginian loss was considerable.

The result of the battle of Ecnomus gave to Rome the temporary command of the sea, and this was fully appreciated by the Carthaginians, for after the battle they im-

mediately retreated to the Gulf of Carthage to defend their shores against the anticipated invasion; but Regulus failed to make the most of the position his naval victory had placed him in. He apparently did not appreciate the value of the command of the sea as accurately as his enemies, for upon refitting his fleet he sailed for Africa and landed unopposed at Aspis or Clupea (now Aklibiah). From here his army contented themselves with ravaging the country. Here we have an illustration of the grave tactical error of dividing a fighting force, either territorial or naval, in face of a combined force of greater or of equal strength.

How often do we find the numerous lessons that have since been given so grossly neglected. So secure did the Romans believe the footing they had now secured in Africa that the Consul Manlius returned to Europe with a large portion of the army, leaving Regulus in command in Africa with but forty ships, 15,000 infantry, and 500 cavalry; yet with this small force he succeeded in occupying Tunis, only ten miles from Carthage, and it appeared as if the African Republic was even now doomed to sink under the might of Europe. But whilst Regulus lay inactive in his winter quarters, the Carthaginians, reinforced by the return of Hamilcar, urgently recalled with his army from Sicily (a full appreciation of the importance of sea-power by the Romans should never have allowed this to have occurred), reorganised their army and gave battle to the Roman army on the plains of Tunis before reinforcements could be obtained from Italy. The Romans were defeated and few escaped; their commander, the Consul Regulus, was made prisoner.

Upon the intelligence of this defeat reaching Rome, a fleet of 350 vessels was immediately despatched to Clupea to succour the remnants of the defeated army of occupation. This naval force was met by the Carthaginian navy, but in the battle which ensued the Romans were victorious and captured or destroyed 114 Carthaginian vessels. This fleet succeeded in relieving the little force, which was on the point of surrendering Clupea; but the haste with which

it again put to sea, in spite of the warnings of the pilots, resulted in the crowning disaster of the campaign, for it was overtaken by a storm which destroyed three-fourths of the fleet. The Romans realised that the successful issue of this war depended upon sea-power, and they immediately set to and built and equipped another 220 ships; and these, added to the eighty that had survived the wreck, captured Panormus, which became as important a stronghold for the Romans as it had been for the Carthaginians. This fleet captured all the ports on the north coast of Sicily, except Thermæ. The new fleet was but short-lived, for it too fell a victim to the tempests, and was destroyed in a storm off the Lucanian promontory.

The Roman Senate, disheartened at these losses, now decided only to keep up a fleet of sixty vessels for the defence of the coasts of Italy, and for maintaining communications with Sicily; but two years later (250 B.C.) they again took courage and built a fleet of 200 vessels, with which they attacked Lilybæum, the post which now alone connected Sicily with Africa. An entrance was forced into the harbour, but failed to keep out a relieving squadron of the Carthaginians.

The following year the Roman fleet met and engaged the Carthaginians at Drepanum. This sea-fight is remarkable as the only great naval victory gained over the Romans by an enemy who, till this war, had held the command of the sea. This victory resulted in raising the siege of Lilybæum, in capturing or destroying 123 Roman vessels; furthermore, the Consul L. Junius, who had been sent with 120 ships to escort a convoy of 800 transports to Lilybæum, sent forward a large part of his transports along the south coast without support. The Carthaginian admiral interposed between the two divisions of the fleet, forcing them to seek shelter in the roadsteads of Gelu and Camorina, where they were entirely destroyed by a storm.

In seventeen years the Romans had lost four great fleets, three of them with armies on board. The Carthaginians, though not so exhausted, made no efforts to finish

the war by calling out their reserves. The destruction of the Roman fleet appeared to them sufficient excuse for allowing their own navy to fall into decay.

It was at this period of indifference on both sides that individual genius intervened and instilled fresh vigour to this war.

In 247 B.C., Hamilcar Barca, the father of the two famous Carthaginian generals Hannibal and Hasdrubal, was appointed to command the Carthaginian forces. Establishing his army in a fortified position on Mount Ercte, he annoyed the Roman garrison of Panormus; and his cruisers, by ravaging the rich coasts of Italy as far as Cumæ, kept the enemy in alarm at Rome, and procured him supplies independently of Carthage.

At this time the Roman Senate appeared paralysed at the loss of their last fleet, and had it not been for private enterprise Rome would have surrendered to their enemy the command of the sea, and Carthage, and not Rome, would ultimately have directed the progress of civilisation and been for a period the mistress of the world; but the united efforts of wealthy citizens fitted out privateers, which retaliated the insults and burnt the ancient city of Hippo. Private subscriptions built and fitted out a fleet of 200 ships of war manned by 60,000 sailors. This new navy was commanded by Lutatius Catulus, who swept Hamilcar's cruisers from the sea, blockaded Drepanum and Lilybæum, and again secured for Rome the command of the sea.

The Carthaginians fitted out a fleet for the purpose of regaining their maritime supremacy. This fleet met the Roman navy amidst the group of islands called the Ægates. The Carthaginians appear to have been unaware of the renewed strength of the Roman navy. After its destruction by storm, and the avowed determination of the Roman Senate not to rebuild a navy, Carthage, now with a depleted marine consisting of obsolete vessels manned by impractical hands, considered herself again mistress of the sea; therefore the intelligence that her enemy had reappeared at sea was

received with astonishment, and the fleet despatched under Hanno to destroy the newly built and equipped Roman navy was hurriedly got together. It was also hampered with provisions and stores for the garrison at Eryx, Hanno's intention being to deliver these stores and strengthen his fleet before giving battle to the Romans; but the efficiency of the Roman intelligence enabled this intention to be thwarted, and, according to Polybius, the Roman admiral selected all the bravest of the legions and sailed to Ægusa, an island that lay opposite to Lilybæum . . . "and acquainted the pilots that he should next day offer battle to the Carthaginians. When the morning came, observing that the wind blew strong and favourable to the enemy, but contrary to the course which he himself was obliged to steer, and that the sea was rough and turbulent, he was for some time in doubt what resolution he should take; but when he had reflected within himself that if he should now engage, notwithstanding all roughness of the season, the contest would only be with Hanno and the naval forces, and with ships that were heavy and encumbered, but that if by waiting till the sea was calm he should suffer the enemy to pass and join the camp (Eryx), he must then be forced to encounter with troops selected from the army, with ships which would be light and easy in their motions, and, above all the rest, with the bold and daring spirit of Amilcar, who was now become very terrible to the Romans, he at last resolved to seize the occasion, and to venture on a battle. As the enemy were sailing full before the wind, he made haste to get out to sea. The rowers, strong and dexterous, broke with ease the force of the wind and waves, and the vessels soon were ranged in a single line with their prows turned towards the enemy.

"The Carthaginians being thus intercepted in their course, take down their sails, and, after mutual exhortations, begin the combat. As the condition of the several fleets was now in all points different from what it had been in the former battle, it was reasonable to expect that the event would be also different.

"The Roman fleet was built in a more skilful manner than before; their vessels were not encumbered with any heavy furniture, except such only as was necessary for the fight. Their rowers had been exercised with so much diligence and care that they were able to perform the greatest service; and, in the last place, their soldiers, being all selected from the choicest of the legions, were men who knew not how to retreat or yield. But on the side of the Carthaginians all things bore a different face: their ships were burthened with a heavy lading, which rendered them unfit for action; their sailors were impractical in their art, and such as had been hastily thrown together for the present voyage; and their troops were new-raised levies, and not acquainted with the terrors or the toils of war. For so strongly were they assured that the Romans never would appear again upon the sea, that they had for some time past neglected all their naval forces. From these causes, then, it happened that they were in every part defeated, even in the first encounter. Fifty of their ships were sunk and seventy taken by the Romans, with all the men; but the wind, as if engaged to favour them, turning suddenly about in the very moment of their danger, filled all their sails, and carried the rest of the fleet safe back to Hiera. The Consul steered his course to Lilybæum, where his first care was to dispose of the captive ships and men—a task which gave him no small trouble, for the numbers of the latter amounted to near 10,000." [1] This naval battle, known as the battle of Ægusa, was not only decisive in its immediate effect, but the influence of the victory, by establishing Roman command of the sea, was the determining factor in the war which followed.

The Carthaginians realised that they were deprived of all the means by which they could hope to carry on the war. The command of the sea having been wrested from them by the enemy, it became impossible to send supplies to the troops in Sicily. The Carthaginians had no alternative but to sue for peace; and the following treaty, an

[1] Polybius, book i. chap. v. pp. 69, 70.

official recognition of sea-power, was shortly afterwards concluded :—

"There shall be peace between the Carthaginians and the Romans, with the approbation of the Roman people, upon these conditions : The Carthaginians shall relinquish every part of Sicily. They shall not make war upon Hiero, nor give any disturbance to the Syracusans or their allies. They shall restore without ransom all the Roman prisoners, and pay a tribute of 2200 Euboic talents of silver within the course of twenty years."

As the people of Rome refused to confirm this treaty, it was amended by increasing the indemnity by a thousand talents, reducing the period of payment, and the surrender to the Romans of all the islands that lay between Sicily and Italy.

In the course of this war, principally a naval war, which lasted without intermission for twenty-four years, the Romans lost in action or by tempest 700 quinquiremes, and the Carthaginians 500.

The decisive battle of Ægusa, instead of crushing the ambitious aims of Hamilcar against Rome, only diverted the means by which he purposed achieving his object. He it was who conceived and set in motion the arduous plan of campaign followed by his sons. For the first two years after the peace with Rome he was fully occupied in putting down the revolt of the mercenaries in Africa ; but as soon as he was at liberty he marched into Spain. Of the details of his operations we have no account ; but their result was the conquest of a large portion of the peninsula, and the subjection by war or negotiation of many of the native tribes, whom he trained to form an army. Upon his death (229 B.C.), ten years before the second Punic War, for which he had been preparing, his son-in-law, Hasdrubal, assumed command in Spain. He founded the city of New Carthage, in a strategic position and on the finest harbour of the coast.

The Romans were apparently satisfied with the pretext given, that the conquest of Spain had been undertaken to procure means for paying the late war indemnity.

Upon the death of Hasdrubal (221 B.C.), Hannibal, the son of the late general Hamilcar, assumed command at the early age of twenty-six. He had from a child been bred in the camp and the field. As his father's constant companion, he was aware of the latter's designs upon the Roman Empire, and he now determined to carry them into effect. Hamilcar and Hasdrubal had, to all intents and purposes, divorced themselves and their armies from Carthage. Spain was to be the base of operations against Rome; and thus it was hoped that Rome's command of the sea would be useless to her, and that her navies would impotently watch the march of her enemies to her very capital. But as the principles of sea-power are based upon natural laws, it is beyond the scope of human ability to overcome or evade them.

In the spring of 218 B.C., Hannibal, with an army of 90,000 infantry and 12,000 cavalry, left his winter quarters and began his invasion of Italy. He left his brother Hasdrubal in command of the forces in Spain. These consisted of 1500 cavalry and 11,500 infantry. The navy was likewise left under Hasdrubal to guard the coast towns of Spain; and this comprised thirty-two quinquiremes, two quadriremes, and five triremes.

Now, although the Romans were struck with the boldness and the strategic skill of Hannibal's invasion, and had failed to anticipate such an apparently impossible feat, they lost no time in applying to this war that factor which had effectually decided the last Punic War, and which was again to demonstrate its invariableness; for while Hannibal was making his dangerous march across the Alps, in a vain endeavour to overcome the principles of sea-power, these very principles were being actively used against him. The Romans were at that very time sending to Spain one part of their fleet, transporting a Consular army. This force established itself north of the Ebro, on Hannibal's line of communications; and at the same time yet another Roman fleet, with an army on board commanded by another Consul, was despatched to Sicily. These two fleets

numbered 220 vessels. Upon the arrival of Hannibal's depleted army in Italy, the Romans had little fear of repulsing him with ease. But his genius was sufficient to bring together a fighting force with which, to the amazement of the Romans, he defeated, in three successive battles, the flower of their army. These reverses at the very gates of her capital did not dismay the republic, for the Romans immediately renewed the preparations for the war with greater vigour than before. Reinforcements were sent into Sicily and Sardinia, a garrison placed in Tarentum, and all the coast towns strengthened; an additional fleet of sixty vessels was also added to the navy. In the meantime, the fleet under Cnæus Scipio sailed from the north of the Rhone, and, landing the troops in Spain, sailed along the coast, capturing and garrisoning all the ports as far as the Iberus. Here meeting the Carthaginian fleet, now increased to forty vessels, and under the command of Hamilcar, an engagement immediately followed, in full view of Hasdrubal's army lining the shore. The Carthaginian fleet was defeated, six vessels being sunk and twenty-five captured.

Again the Romans held undisputed sway at sea, and the Carthaginian ports were at their mercy. As soon as the intelligence of this naval defeat reached Carthage, another fleet of seventy vessels was immediately equipped; "for they judged it to be a point of the last importance with regard to the prosecution of the war, that they should still preserve their sovereignty upon the sea." [1]

Against this new fleet the Romans despatched a fleet of 120 quinquiremes to sweep it from the seas. It was followed to Sardinia, and then to Pisæ; from thence it returned to Carthage. The Roman fleet, desisting from the chase, put into the port of Lilybæum.

The destruction of Hasdrubal's fleet by Cnæus Scipio drew the attention of the Roman Senate to the strategic importance of Spain, and the absolute necessity of retaining the command of the sea; for they realised that the Carthaginians, once they fully conquered Spain, with all

[1] Polybius, book iii. chap. x. p. 291.

the wealth that could be drawn from it, would in a short time be in a position to rebuild a powerful navy, employ maritime mercenaries, and contend with prospects of success for the sovereignty of the sea. To provide against this contingency, they therefore despatched the Consul Publius Scipio, with twenty ships, to join his brother Cnæus.

Hannibal had now been two years in Italy, and had defeated the Roman armies in three pitched battles; and yet he felt insecure, from the fact of his communications with Spain being cut. He therefore decided to bring the war to an end by engaging the Roman army concentrated at Cannæ. This consisted of 80,000 infantry and 6000 cavalry, whilst that commanded by Hannibal numbered but 40,000 infantry and 10,000 cavalry. This battle was the most disastrous yet fought by the Romans; for they left 70,000 dead upon the field, including two-thirds of the chief officers, eighty Romans of senatorial rank, the Proconsul Servilius, and the Consul Æmilius Paulus. Of Hannibal's force 6000 were killed. The disaster of Cannæ would appear to justify Hasdrubal's determination of twelve years before to ignore the power of the sea and to conquer Rome by land alone; but that this plan of conquest was founded upon false premises was even now apparent to Hannibal, for in spite of his crushing victory at Cannæ he found it impossible to move upon Rome. He yet had to keep a watchful eye upon Macedonia, Africa, Sicily, and Spain.

The Roman fleet at Lilybæum kept the Carthaginians active at home guarding against a descent on Africa. The brothers Scipio were rapidly securing Roman supremacy in Spain. They had defeated Hanno both by land and sea, and were now carrying the war beyond the Ebro, and had inflicted a severe defeat on Hasdrubal in his attempt to cross the river with reinforcements for Hannibal (216 B.C.), the position now being that, while Rome held the sea and the Pyrenees, their allies commanded the route round the Gallic coast. Feeling the need for reinforcements before completing his subjection of Italy, Hannibal decided

to go into winter quarters at Capua, and there await the result of his appeal to Carthage. All hopes of renewing his campaign of victory depended upon these reinforcements coming from Carthage, Spain, Macedonia, or Syracuse; but Rome held the command of the sea, and these reinforcements were effectually stopped. And whilst the Carthaginian army of invasion rested in Capua after its three years' incessant fighting, the Romans were actively engaged in bringing into being an army of sufficient strength and efficiency as to overthrow the invader. They were likewise busily engaged in laying waste the country upon which Hannibal was dependent for sustenance for troops and horses. But the Roman armies in Spain were destined to receive a severe check. Hasdrubal and his brother Mago arrived from Africa in the spring of 213 with reinforcements. The Carthaginian army defeated the two Roman consuls beyond Ebro, the Consul P. Scipio being killed. The remnants of the Roman army rallied along the Ebro, and still succeeded in holding this line; and thus the main object of operations in Spain was secured, by preventing reinforcements from passing over into Italy. Hannibal, finding himself cut off from reinforcements from Carthage, Sicily, and Macedonia, decided to establish himself in Italy, and for a further six years after his great victory at Cannæ succeeded in keeping the Roman armies at bay and in holding his own army together. The Romans, strengthening their fleet year by year, were enabled by continual threats upon Africa to keep the Carthaginians from sending reinforcements to Hasdrubal in Spain, and by a complete patrol of the coast precluded soldiers or stores being landed from elsewhere. Hasdrubal at the end of 208 B.C. found himself much in the same position in Spain as his brother was in Italy; he therefore decided to abandon Spain, force his way over the Alps, and join forces with Hannibal. Here is another tribute to sea-power. Hasdrubal was forced to take this course by the brilliant generalship of the young Scipio, who, by a combined naval and military attack, captured New Carthage.

The ambitious schemes of Hamilcar and his sons were annihilated in a single day by the loss of their base, and the inexorable principles of sea-power disclosed themselves. Scipio, in his anxiety to end the war in Spain, laid up his navy and drafted the sailors into the army. This left the sea open, and resulted in defeating the Consul's object; for Mago seized the opportunity, and, embarking the remnants of his army, sailed to Minorca, and thence in the following spring to Liguria, where he succeeded in raising a fresh army, with which he sacked Genoa and maintained a guerilla warfare for a further two years.

Scipio now abandoned his scheme for ending the war in Spain, and decided to remove the scene of operations to Africa. His command of the sea enabled him to transport in safety an army of 20,000 foot, 6000 cavalry, and 140 elephants. He landed with this force in the spring of 204 B.C., to the north of Utica. This strategic move had the desired effect of ridding Italy of the dreaded Hannibal, for he was immediately recalled to defend Carthage. For fifteen years this military genius had been a terror to Rome; he had been responsible for the loss of 300,000 Roman soldiers in war. His brother, Hasdrubal, had been killed in the Carthaginian defeat at the Metaurus, and his brother Mago died of wounds on his way back to Carthage. These three generals and their armies had been defeated in a struggle lasting for eighteen years, not by the superior courage of the Romans or by the skill of the leaders, but by the sea-power of the enemy and the neglect of their own government in failing to recognise the primary importance of the sea, where the territory of either party or the theatre of war is accessible by it.

The vast resources of Carthage had been exhausted in a vain endeavour to keep up communications with the theatre of war by land, the natural lines of which were in the sea. The final act of this great war took place where one naturally expects it to have been—at the gates of the capital of that combatant weakest at sea.

The battle of Zama took place in October 202 B.C., in

the plain of the Upper Bagradas. Hannibal's army was practically annihilated, and with its defeat Rome found herself mistress of the then known world.

The terms of peace exacted from Carthage by the victor Scipio, were such as precluded her for all time from being a rival, one of the conditions being the surrender of the Carthaginian navy, except twenty ships.

The third Punic War, which lasted for four years, broke out in 150 B.C., and was one of desperate self-preservation on the part of the Carthaginians. Rome had viewed with concern the maritime influence of Carthage, and at last decided that it should be destroyed. The verdict was conveyed by envoys from the Roman Senate, and delivered to the Carthaginians by the Consul Censorinus, in these words: "It is the will and pleasure of the Roman Senate that Carthage shall be destroyed, and that the citizens shall remove to any other part of their territory, provided it be a distance of twelve miles from the sea."

For three years Carthage withstood one of the most determined sieges in history, and during that period she succeeded in building 120 triremes, and with fifty of these vessels an endeavour was made to force a way through the blockading fleet. But this attempt was her last sea fight, and the destruction of her last navy was due to the seamen of her mother country; for the Roman fleet was almost wholly manned by Sidonian mariners. And thus the great Phœnician city, which had so long been mistress of the Western seas, and whose mariners had been responsible for developing that power of the sea discovered by their ancestors, was destroyed by neglecting to adhere to its principles.

The destruction of Carthage left Rome free to expand both by land and sea. The Punic Wars had prevented her from benefiting by her command of the sea except in a military sense. She now hastened to plant colonies, and it was resolved that the entire national territory, both actual and that which might be acquired for some time to come, would be needed to replenish by its revenues

the exhausted treasury of the State, and to furnish the supplies necessary to defend the conquered regions; and in this respect all the maritime colonies were drawn upon for quotas of ships and seamen for service with the navy.

It is this period of the history of Rome which calls for our admiration. With the passing of her formidable rival there disappeared from the then known seas the only competitor for their command. Rome might with good excuse have allowed her navy to fall into decay. Her statesmen, however, were wise enough to reason that, while the present found their navy supreme and commanding the seas, it was only that supremacy which forbade the rise of rivals; and it was this practical policy which again saved the West from the dominance of the East.

Mark Antony's decision to fight for the sovereignty of the world on the sea is a better tribute to his military judgment than the result of the battle of Actium is to his skill as a naval commander. When Mark Antony championed the cause of Cleopatra, and led the forces of the East against the West, he realised that victory could only rest with the commander who secured the sea; and he therefore equipped a fleet of 500 vessels, many of which had from eight to ten rows of oars. The navy which Octavius had to oppose this did not exceed 150 vessels, and they were a great deal smaller than those of Antony's, but better built, less cumbersome, and far better manned with sailors and rowers, all of whom were efficiently trained; whereas the personnel of Antony's fleet was sadly deficient in numbers, the vessels being but half-manned, and for the greater part with men pressed into the service at the eleventh hour.

Antony's army consisted of 100,000 infantry and 12,000 cavalry, but this did not include his host of auxiliary troops supplied by Libya, Cilicia, Cappadocia, Persia, and Arabia. Octavius' land forces consisted of 80,000 legionary soldiers and 12,000 cavalry, but this was not reinforced with auxiliaries.

This war, nominally between Rome and Egypt, but

actually a civil war in which the Eastern races of the Empire of the then known world contested against the Western races for dominance and sovereignty, shook the Roman Empire to its foundations.

Antony's dominions extended from the Euphrates and Armenia as far as the Ionian Sea, and also included Egypt and Cyrenaica. Octavius had on his side Spain, Gaul, Illyricum, Italy, and the islands of Sicily and Sardinia.

In the autumn of 32 B.C. Antony arrived at the island of Corcyra with the whole of his fleet, but hearing that the enemy's vessels had appeared upon the neighbouring coast and supposing that Octavius' whole fleet was at sea, he retired towards Peloponnesus. There he put his forces into winter quarters.

Early in the spring of 31 B.C. Octavius assembled his forces at Brundusium and there embarked for Greece. He had previously despatched a naval squadron under Agrippa to harass the enemy.

This squadron made descents in several places in Greece and successfully assaulted Methnea, a town of importance in Peloponnesus, and defended by a large garrison. Agrippa next intercepted and captured a convoy conveying provisions and warlike stores from Syria and Egypt.

Now, although Antony had been established in Greece since the autumn and his navy anchored off Actium for some months, he appears to have neglected to take any precautionary measures. His fleet was sufficiently strong to have enabled the enemy's coasts to have been watched. Had his light vessels kept in touch with the enemy, he could have attacked Octavius' fleet, hampered as it was with transports carrying an army of 100,000 men, provisions, and warlike stores, anywhere in the Ionian Sea. His greatly superior naval strength, unhampered by transports, should have enabled him to annihilate the unwieldy armada that is said to have stretched from coast to coast. Octavius disembarked his army at the Ceraunian (Chimera) mountains; from here it marched to the Gulf of Arta. The fleet now sailed to Corsica, which it took

without opposition. Here the ships refitted and prepared for action. Octavius appears to have kept well in touch with his enemy and to have watched his movements. From Corsica he sailed direct for Actium, where he all but surprised Antony, who appears to have been quite ignorant of his enemy's whereabouts until the latter appeared before him. In order to deceive Octavius, whom Antony, in the unprepared condition of the fleet, was unable to resist had an immediate attack been made, the rowers were armed and paraded upon the decks, and at the same time the oars of the vessels were suspended so as to give them the appearance of being used. This deception had the desired effect, and Octavius retired to the north side of the Gulf of Ambracia (Prevesa); here he formed his camp. The two opposing forces with their fleets were now separated by the breadth of the Gulf. Octavius, becoming aware of the unpreparedness of Antony, endeavoured to entice him from port and to bring on a decisive action, but the latter had not yet completed the concentration of his forces, and was endeavouring to make up lost time in the training of his sailors. Octavius, disappointed at the delay in bringing about a decisive action, and realising that the longer this was put off the better it was for the enemy, despatched Agrippa with a strong squadron to harass the coast, trusting by this action to force Antony to quit his anchorage. Agrippa captured Leucate (Cape St. Mauro), together with a number of vessels at anchor there. Patras and Corinth were also taken possession of. This successful raid had a disturbing effect upon Antony's land and naval forces lying inactive in camp and at anchor, and resulted in numerous desertions. He therefore decided to stake everything upon a naval battle, and that before Octavius augmented his fleet by captures. Antony realised that, however crushing a defeat he inflicted upon his enemy upon land, such would not be decisive while Octavius possessed an efficient navy with which to cut him off from Egypt. Preparation was immediately made for a sea fight. Antony selected as many of his best vessels as he could efficiently man, and burnt

the rest. This reduced his fleet to 170 vessels, to which must be added some sixty galleys belonging to Cleopatra; but Agrippa's recent successes had brought the fleet of Octavius up to 260 vessels. Hence it will be seen that Antony's delay in giving battle had reversed the numerical strength of the fleets. Antony's vessels were much larger and of a loftier build, and he believed this advantage would compensate for inferiority in numbers, especially as he was enabled to carry a larger number of soldiers on deck. He embarked on board this fleet 20,000 legionary soldiers and 2000 archers. At daylight on the 2nd of September 31 B.C. Antony lined his fleet across the mouth of the Gulf of Ambracia. The fleet was divided into three divisions—a right wing, a left wing, and a centre, each under command of an admiral, while Antony held himself free for a general supervision of the battle.

Octavius, gaining the open sea, put about and lined his fleet opposite that of Antony, Agrippa commander-in-chief, with admirals in command of the right and left wings. Octavius took a similar position in his fleet as Antony had assigned to himself.

A resemblance to the battle of Syracuse is seen in the armies of both combatants lining the shores of the Gulf as spectators. The fact that for many centuries naval battles were fought within hailing distance of armies, serves as evidence of the slow separation of the maritime fighting force from the army; the separation was gradual, and only became complete upon the establishment of sea-power. Antony's plan of action was to offer battle, but not to be the first to attack; he instructed his captains to wait for the enemy and to guard against the rocks and shallows in a narrow sea: but Octavius did not attack, contenting himself with ranging his fleet opposite that of the enemy at a distance of about one mile. About noon Antony's captains, exasperated at the delay, advanced the left wing towards the enemy; Octavius, anxious to draw them farther from the shore, moved his right wing out to sea, as though falling back from the enemy's left wing. When Antony's left

wing had been drawn out sufficiently far from shore, it was engaged, and at the same time Agrippa stretched out his left and threatened to surround the enemy. In endeavouring to counteract this move, Antony's right wing became separated from the centre, and fell into disorder. Up to this stage of the fight the advantage was with Antony's vessels, as the smaller and lower ships of Octavius had failed to make much impression on what to them appeared floating towers, for most of these vessels had had wooden towers raised upon them from which the soldiers fought with catapults. At a moment when neither side had any advantage, Cleopatra's squadron of sixty galleys set sail and made towards Peloponnesus. The desertion of these sixty galleys should have made little difference to the battle, for it does not appear as if they took any serious part in the fight. The size, weight, and armour of Antony's vessels, together with the large number of fighting men each carried, appeared to give them up to this time an advantage which must have told; but Antony's conduct on this occasion is quite inconceivable, for, betraying those who were fighting for him with every hope of success, he went into a galley accompanied by two or three friends, overtook, and joined Cleopatra.

It was some time before it became generally known throughout the fleet that their commander had deserted them; but Octavius observing it went himself among the enemy informing them of the fact and offering them quarter. By four o'clock in the afternoon the battle was over, the whole fleet surrendering to Octavius. The number of men killed was 5000. Seven days after this battle, the army, finding itself deserted by Antony and cut off by Octavius' fleet, likewise surrendered.

The battle of Actium, fought between the forces of Asia and of Europe, took place where East meets West and rolled back the threatened invasion of the West by Asiatic and African races, and once again secured the purity of the people of Europe.

With Actium sea-power came into its own, for both

Antony and Octavius were generals well versed in strategy and military tactics, both commanding large armies of nearly equal strength, ranged opposite to each other, each confident of success should they engage, neither of them sailors in the true sense of the word. Yet both were strategists enough to realise that success could only be secured by an action at sea; victory upon land, however overwhelming, would be fruitless while the enemy had an unbeaten fleet at sea.

Actium affords us the spectacle of two experienced generals commanding large armies facing each other, acknowledging the all-importance of sea-power by leaving those armies inactive and taking to the sea and deciding the sovereignty of the then known world with maritime forces far inferior in number to the available land forces impotently standing by as spectators. Actium witnessed the full development of sea-power; its firm establishment as the first and governing principle of warfare occurred in the centuries that followed, though, as in the Punic Wars, the principle has often been lost sight of in the crowded arena of historical detail which is never lacking when military operations are described.

CHAPTER IV

SEA-POWER ESTABLISHED

The battle of Actium marked the development of sea-power, for it was undertaken by both sides with a full sense of the importance of securing by its result the command of the sea. Anterior to this action the significance attaching to the command of the sea was but imperfectly understood. We have endeavoured to show how the result of the Punic Wars was brought about solely by sea-power, yet it has been seen that during these wars even the Romans failed to give this fact its full weight. At times, greater importance was attached to their land operations, and the occasional lapses into indifference to and neglect of their navy was always the moment seized by a vigilant enemy to make naval raids, throw reinforcements or stores into beleaguered seaports, or to make such dispositions of their forces by sea as prolonged the wars and seriously drained the strength of Rome. This goes to show that during these periods sea-power was but being developed; its principles were only imperfectly understood. But the conditions which led up to Actium, the very scene of this battle, the number of vessels engaged and the manner in which they were built, equipped, and manned, the formation for battle, the tactics employed in action, and above all else the strategic principle which governed the selection of the arena for this decisive battle, is proof that Actium was in itself the full development of sea-power; it was a complete acknowledgment that the command of the sea was in future to control the military operations of nations.

As soon as time permitted, after the battle of Actium, the victor, Octavius, reorganised his navy. He realised that the growing maritime commerce between the various

parts of his empire called for naval protection ; and although he could not see from what direction his empire would be threatened by a naval people—for the whole extent of the Mediterranean, after the destruction of Carthage and the extirpation of the pirates, was included within his province—yet he was wise enough to know that it is unpreparedness in defence that invites war. His naval policy, therefore, was directed only to preserve the peaceful dominion of the Mediterranean, and to protect the commerce of his subjects. With these moderate views, which assured his empire the command of the sea without aggression on his part, he stationed two permanent fleets in the most convenient ports of Italy—the one at Ravenna on the Adriatic, and the other at Misenum in the Bay of Naples. The experience of Actium convinced Octavius and his naval officers that as the war galleys exceeded two, or at the most three, ranks of oars they were unsuited for war service. The smaller vessels used by Octavius, and known as Liburnians, had showed more ease and rapidity in manœuvre than the unwieldy ships of Antony ; and it was of these Liburnians that he composed the two fleets of Ravenna and Misenum. The former fleet commanded the eastern division, and the latter the western division, of the Mediterranean. In addition to the sailors, each of these fleets carried 7000 marines, for the purpose of quelling in inception any rebellion that might occur inland, and which if neglected would surely grow into serious war. In this we see a proper conception of one of the principles of sea-power—the descent of a superior force at the nearest point of disturbance with the least possible delay. Besides these two main divisions, which may be considered as the principal fleets, and their stations as the chief seats of the Roman navy, a third fleet was stationed at Fréjus, on the coast of Provence, and another fleet of forty ships, with 3000 marines, guarded the Euxine. Another fleet was kept in permanent commission guarding the communications between Gaul and Britain. Here again we have the recognition of another principle of sea-power. A large squadron

was also kept on the Rhine and the Danube to harass the country, or to intercept the passage of an invader—an acknowledgment of another principle of sea-power.

It may be remarked that this navy was inadequate for the requirements of an empire such as that of Rome; but here it must be remembered that Rome was an artificial sea-power. The ambition of the people was mainly confined to the land; they were never actuated by the enterprising spirit which had prompted the navigators of Phœnicia, and even Carthage, to explore the most remote coasts of the world. The Romans held the ocean as an object of terror,[1] and excused themselves from exploring it under the pretence of religious awe. A sea-power not built upon the maritime character of a people must, sooner or later, fall into decay for want of vitality; and the sea-power of Rome stands as an example of this, for with the death of Octavius the navy fell into decay. The absence of a rival power was partly the reason; the spread of luxury, the increasing dependence upon mercenaries for the defence of the empire, and the lack of maritime character among the people themselves. The main cause, and the beginning, as following the cause, of the decline of the empire was the decay of the navy. The lessons of the Punic Wars and of Actium, the dangers the empire had been saved from by sea-power, were forgotten; and when too late those principles of sea-power that had worked in building and securing the empire were put into operation by her enemies to encompass her downfall, it was a fitting punishment for Rome's neglect of those principles of which she herself had demonstrated the invariableness, that the seat of her ancient enemy Carthage should contribute to her undoing.

By the year 429 A.D. the sea-power of Rome had fallen into such decay that Genseric, King of the Vandals, acting upon the invitation of the Roman general Count Boniface, commanding the Roman forces in Africa, and who had revolted from the empire, succeeded without opposition in transporting an army of 50,000 men into Africa. When

[1] Tacitus, *Germania*, chap. xxxiv.

too late Boniface repented his treachery to the empire, and endeavoured to expel by force of arms Genseric and his forces; but the latter had secured the active allegiance of the Moors, who had suffered from Roman tyranny. The empire was now bitterly to repent the neglect of retaining the command of the sea, which would have made impossible the descent upon Africa. Boniface and the band of veterans who marched under his standard, together with the hasty levies of provincial troops, were defeated with considerable loss. Genseric could not have selected any portion of the empire for the purpose of disintegrating the whole so effectively and rapidly as Africa. The African province was extremely populous. The inhabitants reserved a liberal subsistence for their own use; and the annual exportation, particularly of wheat, was so regular and plentiful that Africa had for centuries held the name of the common granary of Rome and of mankind. Genseric and his Vandals, having achieved by the decay of the Roman sea-power what should otherwise have been impossible, overwhelmed the seven fruitful provinces, from Tangier to Tripoli. Boniface immediately retreated to Hippo Regius, a maritime colony 200 miles to the west of Carthage, and after a siege of fourteen months he embarked the remnants of his army and returned to Ravenna. Eight years later Genseric reduced Carthage, and Africa now became his kingdom. The sea-power of Rome had become so enervated that it was impossible to cut Genseric's communications with Spain. At this time Rome was threatened by the most terrible of all her enemies. Attila, at the head of a horde of Huns, emerged from his obscure position in the background of the barbarian movement.

In A.D. 441 Attila crossed the Danube; and while the Romans were engaged with this formidable enemy, Genseric cast his eyes towards the sea. He resolved to create a naval power, and he carried out this idea with steady and active resolution. The forests of Mount Atlas provided him with an inexhaustible supply of timber; his African subjects were skilled in shipbuilding and in navi-

gation. He animated his daring Vandals to adopt a mode of warfare which would make accessible to their arms every maritime country of the then known world; and in A.D. 442, after an interval of six centuries, fleets again issued from the port of Carthage, and secured for their master the command of the Mediterranean. Genseric made himself master of Sicily, Corsica, Sardinia, and the Balearic Islands; his fleet sacked Palermo, and made frequent descents on the coast of Lucania. Attila, recognising that his rival in the conquest of the Roman Empire had the only instrument by which the conquest could be made complete, and the non-possession of which made his own position untenable if he remained for any time in Italy, entered into an alliance with Genseric, and then marched upon Gaul, where he was defeated. Genseric now completed his preparations for a naval descent upon Rome itself; and in A.D. 455 he set sail with a numerous and well-equipped fleet of Vandals and Moors, and, without meeting opposition, cast anchor at the mouth of the Tiber. He disembarked his troops at the port of Ostia, and advanced upon the defenceless city of Rome. After six centuries, retribution was brought into the very walls of the chamber where Cato, with unreasonable hostility and with a voice of hatred, had uttered the decree of fate, *Delenda est Carthago.* Carthage was destroyed by the sea-power of Rome and owing to the neglect of her own navy; and six centuries later the same fate overtook Rome, and, irony of fate, the destroying fleet had been built, equipped, and manned in Carthage.

Out of the decay of the sea-power of Rome there came into being embryo sea-powers which developed at successive periods. The reduction of her navy left Britain and Armorica (a name which comprehended the maritime countries of Gaul between the Seine and the Loire) destitute of naval protection; these colonies thereupon took the opportunity of throwing off the Roman yoke. The Roman magistrates were expelled, and a system of independent government was established. This independence of Britain

and Armorica was recognised later by Honorius, the Emperor of the West. Through the lack of a navy he was unable to enforce the allegiance of these colonies.

With the invasion of Italy by Attila, the people inhabiting Venetia betook themselves to the islands and inaccessible marshes of the Adriatic, and here they laid the foundations of Venice.

There is a striking analogy between the Venetians and the Dutch, two of the greatest sea-powers of their times. The territory occupied by both was so insignificant, so barren, as to appear regions outcast of ocean and earth. Both Holland and Venice were made up of the deposits of ages from the rivers at the mouths of which both lay. In both cases a continual strife between the inhabitants and the very element by which they were to reap all their power and wealth occurred. The description of an ancient historian of the Dutch applies in almost every detail to the early Venetians. "The ocean pours in its flood twice every day, and produces in one's mind a feeling of uncertainty whether one should consider that country as part of the land or of the sea. The wretched inhabitants take refuge on the sandhills or in little huts, which they construct on the summit of lofty poles, in order to escape the tides. When the sea rises, they appear like navigators floating on the water; when it retires, they give the impression of mariners escaping from a wrecked ship. The Batavians subsist on the fish left by the receding waters, and they catch these in nets made of rushes or seaweed. Neither tree nor shrub is visible on these shores. The drink of these people is rain-water, which they preserve with great care. Their fuel is a kind of turf, which they gather and form with the hand." [1]

Holland was formed from the slime of ages by the three great rivers—the Rhine, the Meuse, and the Scheldt—deposited among the dunes and sandbanks heaved up by the ocean around their mouths. This formed a delta, at last habitable for man. The Venetian archipelago was

[1] Pliny, *Historia Naturalis*, xvi. 1.

formed in a similar manner. About the mouths of the numerous rivers which discharge themselves over a space of ninety miles on the north-western coast of the gulf, from Grado to Chiozza, are situated very numerous small islets, embanked against the open sea by long, narrow, intervening slips of land, which serve as so many natural breakwaters. It was on these islets that the people of Venetia sought refuge from the Huns, and from which arose a people renowned alike for their sea-power and commerce. This remarkable state arose before the Empire of Rome was swept away, endured through the barbarism of the northern irruptions, and was finally extinguished in the time of our grandfathers. Its history forms a connecting-link between the Europe of the Romans of the Middle Ages, and of modern history. This state preserved its independence, which rested solely upon sea-power, for 1400 years—a political longevity unparalleled in the annals of human society, in itself a glorious tribute to the remarkable stability of empires whose foundations are laid on the sea. The sea-power of Venice rose to a formidable height with astonishing rapidity, and her commercial prosperity soon reached a pitch unknown to the greatest states of antiquity. Venice possessed all those factors which go to make a sea-power—geographical situation, a homogeneous people having maritime proclivities and training, commercial and martial characteristics, the genius for government, and industry. When one or more of these qualities disappear, then sea-power decays ; and the greatest enemies to all but the first of these essentials are continual prosperity and long peace ; for the one brings luxuriousness, sloth, and depravity, and the other effeminateness, overcautiousness, an exaggerated horror of war, an undue value upon life, and neglect of the defence services. It was by a happy combination of all these factors that Venice acquired the command of the sea, which made her the mainstay of the Crusaders, and resulted in the fall of Constantinople.

In the first Crusade (A.D. 1099) Venice contributed 140 transports and sixty galleys, and she appears to have

amassed considerable wealth from this expedition. The coast of Syria was occupied by the Crusaders, and from here the Venetian fleet sailed to Smyrna, which place they captured. From here they proceeded to Jaffa, in the blockade and conquest of which they played a considerable part. The absence of a large part of the fleet from Venice encouraged the son of Charlemagne to undertake an expedition for its subjection. The fleet therefore hurriedly returned. En route, however, it captured and devastated Rhodes and Chios, seizing and plundering Samos, Lesbos, Andros, and several other islands belonging to the empire. The return of the fleet frustrated any projected attack upon Venice.

In 1102 the Doge Ordelafo Falier, by his vigorous exertions, contributed to the reduction of Acre, Sidon, and of Berythus; and as the Christian arms advanced in Palestine, Venice no less than the other maritime republics largely partook of the benefits of conquest. Twenty years later Venice despatched another naval expedition to the East, under the Doge Domenico Michiel. His command consisted of 200 vessels, many of which were the largest vessels then seen, being banked with one hundred oars, each oar requiring two men to ply it. The Saracen fleet was stationed in the Bay of Jaffa, and, perceiving at first only a few ships of burden, which Michiel had placed in the van to cover his advance, was completely surprised. The battle began at daybreak. The doge led the attack, and his galley succeeded in ramming and sinking, with all its crew, the vessel of the Saracen admiral. The conflict now became general, the two entire lines engaging ship to ship; and it was chiefly by their desperate resolution in boarding that the Venetians were in the end successful and the enemy completely destroyed. The increased prestige this naval battle gave the Venetians among the Crusaders enabled them to conclude a treaty with the Council of Regency most advantageous to the republic—a further acknowledgment to sea-power. One-fourth of Acre had already been granted to Venice; the new treaty bestowed upon the Venetians

an entire street in each city of the kingdom of Jerusalem, all their imports were permitted to pass free of duty, no taxes were to be paid by them, and in all cases in which a resident Venetian was defendant he was to be tried in his own native courts, and it was only as prosecutor that he was compelled to appear before a royal judge. In the partition of future conquests, a third of Tyre, Ascalon, and their dependencies, when won, was to be assigned to the Venetians; but they were to supply a third of the garrison of Tyre. After a siege of three months Tyre fell, and a great share in its capture belonged to the Venetians. Ascalon was next attacked, and soon afterwards fell an easy conquest. But the long absence of a considerable portion of the navy from Venice awakened a new and unexpected enemy. The Greek Empire, hearing of the numerous successes of the Venetians in the East, became doubtful as to whether the danger to which she was exposed by the Infidels was not further removed than that which was to be feared from the establishment of a sea-power at her gates. Orders were therefore given to interrupt the Venetian commerce, and to capture the merchant vessels of the republic wherever they were to be met. The first avowed hostility was committed by the emperor, but Michiel lost no time in exercising his sea-power and illustrating its principles. No longer required before Tyre or Ascalon, his fleet swept and desolated the imperial coast. He then proceeded to Rhodes, which he sacked and pillaged; he captured Scio, where he fixed his winter quarters. The following spring he ravaged the whole archipelago; Samos, Paros, Mitylene, Lesbos, Andros, and other islands suffered his vengeance. Michiel then passing over to Morea, spread similar destruction; and, ascending the Adriatic, he attacked Sebenigo, Trau, Spalatro, and Belgrade. Nowhere did his fleet meet with a single check.

It was not until A.D. 1143 that the Venetians employed mercenaries in their navy. Their sea-power had been built up entirely from their own resources; their own citizens built their vessels, manned them, and fought them.

But in this year war was declared against Padua; and as the expedition fitted out by Venice was not considered of vital importance to the republic, a number of mercenaries were employed. Although the Venetians were successful in this short campaign, the release of their citizens from their first duty to the State by the employment of foreigners had an insidious effect upon the patriotism of the people.

In 1156 the Venetians launched a three-masted vessel, the largest which had until then been built. This more modern type of ship demonstrated its superiority over the hand-propelled single-masted vessel of the age, and was accepted by all the maritime nations as the model for their future marine.

In A.D. 1201 the barons of France decided upon another Crusade to the Holy Land, and it was resolved therefore to proceed by sea to escape the calamities their predecessors had met upon a painful and circuitous march by land. Ambassadors were sent to Venice to obtain their aid, as it was realised that without it the Crusade would meet with disaster before ever it reached the scene of operations. The terms in which the ambassadors addressed the Doge Dandolo on this occasion is evidence that at this time the sea-power of Venice was recognised throughout Europe as being supreme. They thus expressed themselves: "The lords and barons of France, the most high and the most powerful, have sent us to you to pray you, in the name of God, to take pity on Jerusalem, which the Turks hold in bondage. . . . They have made choice of you, because they know that no people that be upon the sea have so great a power as your nation. They have commanded us to throw ourselves at your feet, and not to rise until you shall have granted our request, until you have had pity on the Holy Land beyond the sea." It was agreed by the Venetians to supply a fleet of transports for 4500 horses, 4500 knights, and 20,000 foot-soldiers, upon payment of the sum of 85,000 marks of silver.[1] Apart from this commercial transaction, Venice undertook to con-

[1] £175,000 sterling.

tribute as her share of the Crusade fifty galleys, providing, however, that all conquests by land or by sea should be divided equally between the contracting parties. This, the fourth Crusade, marshalled in Venice, and there embarked a force of 40,000 men. The fleet, entirely found by the Venetians, numbered 500 vessels, of which number fifty were ships of war.

In 1202 this expedition sailed from Venice, and, owing to the counsels of Dandolo, it altered its plans and sailed for Corfu, with the object of attacking Constantinople from that island. The Byzantine court, lost in sloth and luxury, disbelieved or ignored the news of the approach of the Crusaders. It ought to have been easy for Greece, formed by nature a sea-power, to have made some effort before her capital was besieged—only a few years before this invasion the dockyards of Constantinople could commission 1600 vessels of war—but the emperor, devoted to ease and sensuality, had placed his navy in charge of his brother-in-law, whose base cupidity crippled the resources of the State. Stores, arms, equipment and the very vessels themselves had been sold for the private use of Michael Stryphnus. The invading fleet of the Crusaders sailed through the archipelago, and threaded the narrow strait of the Dardanelles without any attempt of opposition. The fleet in making its preliminary reconnaissance actually sailed within bowshot of the walls, and some of the ships were only then bombarded with missiles from the throngs which clustered in the walls and towers. The fleet, instead of pressing an attack, retired to the Asiatic shore and anchored off Chalcedon, where the troops were disembarked and encamped. Ten days later a combined attack by land and sea was made upon the city; the land forces were repulsed, but the Venetians, who attacked in their vessels, were far more successful. They had displayed extraordinary skill in their preparations, and exhausted every branch of military art then known. The decks of their vessels were crowded with warlike engines, and protected from the effects of fire by a thick covering of ox-hides. In order

to reach the ramparts they secured rope ladders to the extremities of the yard-arms, which overtopped the city walls. The vessels sailed up against the ramparts, and the sailors succeeded in storming the defences and secured a footing within the city. The following day the emperor sought safety in flight, and Constantinople opened its gates to the invaders, who placed Isaac Angelus on the throne.

Constantinople was taken by the sea-power of Venice; it could and should have defended itself out on the high seas. It was lost by neglecting one of the first principles of sea-power.

In the following year, A.D. 1204, owing to the emperor evading his obligations with the Crusaders for their services in placing him upon the throne, hostilities were resumed at Constantinople. Six months passed without advantage to either side, when a bold attempt of the Greeks nearly destroyed the Venetian fleet, then lying at anchor in the port. At midnight some seventeen fire-ships were sent among the Venetians, and but for the courage and skill displayed their vessels would have been destroyed, and the army, unable to disengage itself, either by sea or land, must have perished. On the morning of the 9th April a determined attack was made by land and sea, but the attack was repulsed and the fleet was compelled to draw off.

It was then decided to link the vessels in pairs, as the force defending the towers to be attacked by the fleet exceeded that which any single ship could bring against them. Three days later a fresh attack was made with the vessels linked, and by this means some of the towers were taken and the gates forced; night alone checked the slaughter which followed the entrance of the Crusaders into the city.

A month later Baldwin, Count of Flanders, was elected as Emperor of Romania. To the Venetians was assigned a vast territory, including Ægospotamos, Nicomedia, Adrianople, part of Eubœa, Ægina, Megalopolis, Methone, Patras, the Cyclades, Sporades, and many other islands of the Archipelago and Adriatic, and a number of ports fringing the shores of the empire. The Doge of Venice

added the titles of Despot of Romania and Lord of one-fourth and one-eighth of the Roman Empire.

Venice had now reached her zenith. For over two centuries her sea-power had been firmly established. During that period she had placed upon record numerous instances of the invariableness of the principles of sea-power, and had demonstrated time and again the inviolability of the command of the sea and the impotence of non-maritime powers whose territory is open to the sea; but Venice was now to be confronted on the element she had held sway over for so long by a rival whose rise she had neglected to prevent, a rival at whose hands she was to suffer. Her long supremacy at sea had made her neglectful of the rising power of Turkey; so engrossed had Venice become in maritime commerce, that her naval power had been allowed to fall into decay.

The sea-power of Turkey rose under Mahomet II. This youthful monarch in ascending the throne in 1451 devoted himself to strengthening his navy, and in the same year made every preparation for the taking of Constantinople. In the narrow pass of the Bosphorus an Asiatic fortress had formerly been erected by his grandfather; he therefore erected an even more formidable one on the European side, and thus commanded the strait. Having completed his fortresses, Mahomet proceeded to levy tribute on the ships of every nation that should pass within the reach of their cannon. A Venetian vessel refusing obedience to the new masters of the Bosphorus was sunk with a single shot.[1]

In 1453 Mahomet commenced the siege of Constantinople with an army of 260,000 troops and a navy of 320 vessels, though the bulk of them were transports and storeships. The city was now invested by sea and land; the Turkish fleet at the entrance of the Bosphorus was stretched from shore to shore in the form of a crescent, to intercept or repel any assistance from the sea for the besieged. After several

[1] "This is the first case met with in history of the use of cannon in coast defence or in naval warfare. The weapon used on this occasion was a model cannon cast by Urban the Hungarian."—Von Hammer, p. 510.

assaults had been vainly made, the reduction of the city appeared to be hopeless, unless a double attack could be made from the harbour as well as from the land; but the harbour was inaccessible, for it was closed by an impenetrable chain, defended by twenty-eight ships of war supported by numerous galleys and sloops. Mahomet now decided upon the remarkable plan of transporting his lighter ships of war overland into the higher part of the harbour; the distance of six miles was paved with wood, over which eighty galleys and brigantines of fifty and thirty oars each were conveyed from the Bosphorus shore on rollers drawn by manual power. The time taken by this fleet for this overland passage is said to have been one night. The importance of this operation was magnified by the consternation and confidence which it inspired. Upon occupying the upper harbour with his fleet, Mahomet constructed at the narrowest part a bridge or mole, on which he placed several pieces of heavy ordnance. The final and successful assault was made by the fleet of eighty vessels carrying troops with scaling ladders. Constantinople fell after a siege of fifty-three days.

Recognising the geographical importance of the situation of Constantinople as the metropolis of an empire, and anxious to increase his sea-power, Mahomet removed his capital to that city, the very capture of which he owed to his fleet. Here he set about the erection of dockyards and the strengthening of his navy.

While the Greeks suffered the loss of Constantinople, the effects of its capture upon Venice and Genoa were equally disastrous, and was a fitting punishment for their own neglect of the power by which they had gained wealth and empire. The very year after the fall of Constantinople Venice found herself compelled to sign a humble peace with the Turkish sultan. But this manifestation of weakness on the part of a people who for centuries had held the sovereignty of the seas, only encouraged further encroachments by the Turks, and by 1477 they had pushed so far west that they crossed the Tagliamento and reached

the banks of the Piave; the smoking ruins that marked their victorious progress could be plainly seen from Venice. And now, when too late, did her citizens, whose commercial instinct had killed that sea-sense, realise with bitterness that riches were of little avail if the means for their protection were wanting. By 1479, the Venetian navy being powerless to prevent it, the Turks had seized the islands of Eubœa and Negropont. Greece and the islands of the Ægean were now mainly in the power of the Turks; the sultan's navy had by this time secured the command of the Black Sea, and with it held Sinope and Trebizond. By the year 1480 Turkey had secured most of the Levantine islands, and she built fortresses commanding the Hellespont, in addition to those already built holding the Bosphorus. The Sea of Marmora was closed to European vessels, and the Genoese ports in the Crimea and the Sea of Azov were of little value now that their communications were severed. By this time Mahomet had increased his navy to 500 large vessels, and was now in the position of contesting the command of the sea; but before he could do so he died, and his successor lacked the energy and vigour to continue his work; therefore the sea-power of Turkey lay dormant until 1521, when, under the Emperor Suleiman, an impetus was given both to the army and the navy. This monarch revived among his people the Asiatic ambition of conquering Europe, and in this age, the century of Columbus, Cortes, Drake, and Raleigh, a determined effort was made by the Turks to embrace the Western races within their empire. In this year the Sultan took the old familiar road of his predecessor and invaded Hungary. Belgrade was taken, Venice became a vassal of Turkey, paying a heavy tribute for Zante and Cyprus. The following year Rhodes was taken. In 1526, as a result of the fatal battle of Mohács, Hungary became an Ottoman province and remained so for a period of 140 years. The Venetians, now awakened to the fact that the increasing sea-power of the Turks and the conquests they were making on land, greatly aided by their fleets, must ultimately result in Venice becoming a

dependency of the Ottoman Empire and their maritime commerce passing away from them, endeavoured to check this career of conquest, but in doing so lost Cyprus, though this enterprise cost the Turks 50,000 lives.

The Turkish rule of the sea, now materially strengthened, was, however, destined to come to an end. The Venetians, realising their inability of destroying the rising sea-power unaided, entered into a naval alliance with the Spaniards and the knights of Malta; the allies fitted out a fleet of 200 galleys and six huge galleasses, and placed it under the command of Don John of Austria. The Turkish fleet, consisting of 300 vessels under the command of the Admirals Muezzinzada and Uluj Ali, was riding at anchor in the Gulf of Patras when the allies sailed out of the Gulf of Lepanto and gave battle on 7th October 1571. The allies' centre was formed into a crescent under the command of the Prince of Parma, who took post himself in the van. The galleasses were posted like redoubts in front of the line. The Turks pressed forward in irregular formation and opened fire, but suffered severely from the broadsides of the lofty galleasses, which they had to pass before they could come into close action with the line. The two commanders on either side grappled each other's vessels, and for two hours a deadly fight continued from the decks; eventually the Turkish admiral was killed and his flagship carried by boarders. This broke the Turkish centre; their right wing now gave way. The left wing under Uluj Ali had been meeting with some success, and had already taken some of the allies' vessels, but when the admiral saw the collapse of the centre and right he fought his way out and with some forty galleys, all that was left of the Turkish fleet, made sail for the Bosphorus. Ninety-four Turkish ships were sunk or burnt, 130 were captured. It is estimated that 30,000 Turks were killed in this battle.

The battle of Lepanto arrested the Mahometan invasion of the West. The decisive nature of this naval action was not immediately apparent, though the moral effect in proving that the Turks were not invincible at sea was lasting. At

this time Europe was divided and absorbed in the Spanish wars, otherwise the decisive action of Lepanto would have been followed up by the total destruction of the Ottoman Empire, which the result of that battle had left it open to. Lepanto achieved what no land battle could have done: it permanently diverted the Asiatic movement from the West.

The opening of the fifteenth century saw a considerable development in the science of navigation. At this time the Venetians were employing in their extensive maritime trade vessels of large dimensions, and the methods of sailing these had likewise experienced considerable improvement. A rude sort of compass was now in use.[1] As by these means the sea lost much of the mystery that had up to now enveloped it, competition for its dominion became more keen among those peoples who enjoyed a seaboard; and in the course of this competition many of the principles of sea-power became more fully understood, and were therefore placed upon a firm basis.

The maritime ambitions of the Portuguese were first awakened by envy and jealousy of Venice, whose northern fleet touched at their ports on its annual voyage to the Netherlands and England. Prince Henry of Portugal, in spite of great opposition to his schemes, periodically fitted out fleets to cruise southwards. By this course, in 1418 his captains finally doubled Cape Nun. By the end of the century the Portuguese had discovered the waterway to India. The course of Indian trade was radically changed; for the overland routes were abandoned, and Lisbon supplanted Venice as the principal receiving point of the West. Venice, having neglected to establish her sea-power other than upon a commercial basis, was unable to meet the altered condition of things, and her importance as a maritime nation declined. With the decay of Venetian sea-power the Mediterranean was destined to remain an inland lake for many centuries.

Before the middle of the sixteenth century Portugal

[1] Winsor, *Christopher Columbus*, p. 94.

extended her sovereignty over an immense empire. Her marine commanded the coasts of Asia and Africa, from the Straits of Gibraltar to Canton in China. The South Atlantic, the Indian Ocean, and the Red Sea came under her command of the sea, and the Indian trade was exclusively in her hands.

Portugal was the first power to extend the meaning of the command of the sea to embrace the oceans, and by it to connect continents and to embrace the East and the West. The rapid rise of her empire beyond the seas had been a serious drain upon the parent state. The riches of Brazil had attracted that very type of man so necessary in the fleets of a power desirous of retaining the supremacy of the sea. The thirst for riches had drawn the flower of her manhood from Portugal, and the home fleets were depleted of men and ships; hence the heart of the empire was laid open to the first blow that might be given. Nor was this long in coming; for her immediate neighbour, Spain, in 1580 seized by force of arms the throne of Portugal, and reduced that country to a Spanish province. Had the sea-power of Portugal been concentrated or kept as efficient in the home waters as it undoubtedly was in the Indian Ocean at this period of history, this crowning disaster would have been successfully averted by a decisive naval action off the coast of Spain. As the sea-power of Portugal had been created at the expense of that of Venice, so was the sea-power of Spain to rise on the ruins of that of Portugal; for the Spaniards, jealous of the natural advantages enjoyed by the former Portuguese colonies over their own, resolved to deprive them of any such superiority. Among the restrictive measures imposed upon the maritime commerce of Portugal was the prohibition to trade with the Low Countries; and thus the lucrative commerce subsisting between Lisbon and Antwerp was annihilated. In addition to these measures, Spain pre-empted 400 Portuguese vessels, some thousands of guns, and large sums of money for war purposes. It was by such acts that Portugal was deprived of her supremacy on the seas. Just prior

to the sixteenth century, Spain was invested by Pope Alexander VI. with the legal ownership of one-half share of the unknown, or only slightly known, regions of the earth. Acting under this authority, Spain continued to extend her absolute authority over Mexico and the adjacent islands, and subsequently over Peru (1525–35); so that by 1542 she had proclaimed her supremacy over the West Indies, Florida, Mexico, California, and the whole seaboard east and west of South America. By this date her oversea possessions included the Philippine archipelago, the Canaries, several islands in the Mediterranean, and numerous strongholds in Africa. This maritime supremacy was secured more by enterprise and skill in navigation than by sea-power. At this period Spain was not called upon to contest the sovereignty of these seas. Had it been so, it is conceivable that her fleets would have acquired that efficiency and fighting quality, the absence of which eventually lost for her the command of the sea, by which alone she could hold together her oversea empire.

We have seen how the sea-power of Portugal grew out of jealousy at the riches being acquired and power exercised by Venice, and how in time Portugal suffered in a similar way from the jealousy of Spain, the latter soaring to even a greater height by her dominion of the sea. Now, whilst it is true that territorial history is continually repeating itself, it is remarkable how the marine history of nations invariably recurs at stated periods of their careers, how the cause and stages of the decay of one sea-power closely resembles that of its predecessors.

The great wealth which Spain drew from her dominion of the sea attracted at an early date the covetous eyes of England.

Though prior to the reign of Henry VII. English seamen had distinguished themselves on the high seas against the French and the Spaniards, and had given every indication of those qualities which have since made them the greatest sailors the world has seen, Henry is the monarch of whom it may be said that he laid the foundation of the royal navy.

From the earliest periods the ports and maritime towns of England had furnished their quota of ships, which, assembling at an appointed rendezvous, placed themselves under the orders of the king's officers. The *Great Harry*, built in 1490, was, strictly speaking, the first ship of the royal navy; but though Henry VII. laid the foundations of the English navy, it was Elizabeth who grasped the meaning of sea-power and realised its relationship to her sea-girt kingdom. She was likewise far-seeing enough to encourage all those whose talents could in any way further that service which was to extend her kingdom into an empire. The accession of Queen Elizabeth to the throne of England marked the dawn of British naval supremacy. At the time, the navy of Spain was the finest in the world; the ships were well built, and manned by sailors experienced in the long and stormy voyages between Europe and South and Central America. In England the new school of seamen—Frobisher, Davis, Hawkins, Gilbert, and Drake—whose influence is felt to the present day, were then laying the foundations of the English navy, and creating those traditions the moral effect of which has gone so far in securing our sea-power. In 1577 Drake had burst into the Pacific, pillaging and burning the rich Spanish colonial towns. In 1587, in command of twenty-eight ships, he devastated the coasts of Spain and Portugal. Entering the harbour of Cadiz, he destroyed, under the guns of the forts, 150 big ships fully equipped for war; then, loading his ships with the plunder, he sailed for Lisbon, and succeeded in destroying more shipping there. It was the great prestige thus gained that stood him and his men in such good stead the following year.

The Armada with which Philip had long threatened to invade England sailed on its purpose on 30th May 1588, and consisted of sixty-eight galleons of the largest size, other vessels of smaller size bringing the fleet up to 132 ships, carrying 33,000 men and mounting 3165 guns.

The Spanish admiral, acting upon information which led him to believe that the English ships were laid up and the

seamen dispersed, not expecting the Armada until the following year, altered his plans and sailed direct for Plymouth, from whence it was sighted on July 19th. This proved the safety of England. "The alarm having now reached the coast of England, the nobility and gentry hastened out with their vessels from every harbour and reinforced the admiral, Lord Howard of Effingham. The Earls of Oxford, Northumberland, and Cumberland, Sir Thomas Cecil, Sir Robert Cecil, Sir Walter Raleigh, Sir Thomas Vavasor, with many others, distinguished themselves by this generous and disinterested service of their country."[1] The English fleet after the conjunction of these vessels amounted to 140 ships, and were contributed as follows:[2]

Men-of-war belonging to Her Majesty	17
Other ships hired by Her Majesty for this service	12
Furnished by the City of London, being double the number the Queen demanded, all well manned and provided with ammunition and provisions	16
Tenders and Storeships	4
Furnished by the City of Bristol, large ships	3
A Tender	1
From Barnstaple, Merchant Ships converted into frigates	3
From Exeter	2
From Exeter, a stout pinnace	1
From Plymouth, stout ships every way equal to the Queen's Men-of-war	7
A Fly Boat	1
Under the command of Lord Henry Seymour in the narrow seas of the Queen's ships and vessels in her service	16
Ships fitted out at the expense of the Nobility, Gentry, and Commons of England	43
By the Merchant Adventurers, Prime Ships and excellently well furnished	10
Sir William Winter's Pinnace	1

[1] Hume, vol. xi. p. 518.

[2] Campbell, *Lives of the Admirals*, vol. i. p. 406.

The English fleet carried 18,000 men, and mounted 837 guns. A more complete system of signalling between the ships and the admirals was decided upon, so as to obviate as much as possible the loss of power by independent action.

On Sunday, July 21st, fighting commenced; but it was decided by the English admiral not to bring on a decisive battle until the Armada had reached the Straits of Dover. On the 27th the Spanish fleet anchored off Calais; and the English fleet, having been reinforced by every available ship, now numbering 140 sail, anchored at easy distance to the westward. Here eight English ships were fitted out as fire-ships, and on the night of the 28th were sent among the Spaniards. Although no actual damage was done by these fire-ships, yet to avoid them the Spaniards hurriedly and in great confusion put to sea, and were hotly attacked by the English. This was the decisive phase of the action, for the remnants of the Armada hurriedly made its way back to Spain. The Spanish loss was forty large vessels, together with 10,185 men, whilst that of the English was but one small vessel with 100 men.

The design of the Armada of 1588 and that of Napoleon in 1805 were identical, for in both cases it was intended to wrest the command of the sea—at least for a time—and then, escorted by an overpowering naval force, the armies were to embark in their flotilla and cross the sea to England, where a landing was to be effected. In 1588 Parma waited for Medina Sidonia to wrest the command of the sea from the English and Dutch squadrons that masked his flotilla, and enable his soldiers to cross the sea to the land that they were to conquer; and again, in 1805, Napoleon waited with his army and flotilla at Boulogne, looking for Villeneuve to drive away the English cruisers, to secure him and his army a safe passage across the Channel—and in both cases English sea-power saved England.

The sixteenth century marked the extension of the sphere of sea-power, together with a decided advance in both its development and application. We have seen that, prior to this age, its operation had been confined to the Mediter-

ranean or to coast waters outside it. The discovery of America gave the great impetus to sea-power, for it furnished an inducement to seek distant fields of action. The length of the voyages, the rough seas, the uncertain seasons, and the absence from the coast led to a development of sea-power and a more thorough understanding of its principles, which was fully illustrated in the Dutch wars beginning in 1652, and again in the Napoleonic wars. As sea-power may safely be said to have become an established and recognised principle in warfare by those naval actions sketched in this chapter, naval operations later than the Armada will be dealt with in those chapters dealing with other phases of sea-power, and many of these actions will be used as illustrating or emphasising many of the principles or points of the discussion.

CHAPTER V

THE INFLUENCE OF SEA-POWER UPON CIVILISATION

It has ever been a popular belief that the term sea-power is synonymous with naval warfare; that sea-power is solely represented by battleships, guns, and seamen; and that its influence has only been exercised in a militant capacity. Yet all this is, strictly speaking, but the product of sea-power—a product which, other essentials being available, may be brought into being with little difficulty, and at comparatively short notice. A wealthy power may own battleships, guns, and men, and yet be far inferior in sea-power to in other respects an insignificant nation.

The important part played by sea-power in the advancement and spread of civilisation has not been given that prominence it so richly deserves. Compare the slow and tedious progress of civilisation by land through Aryan Persia and Chaldæa to Egypt, through Asia Minor to Greece, with the rapidity of its spread from Phœnicia by means of sea-power, and from Greece by the same means.

India, whilst the cradle of science, progress, and skill, yet lacked the sea-sense which would have enabled the spread and full development of its civilisation. Religion, philosophy, and law were likewise originally Indian, due to slow developments made by Aryan races—Brahmans, Rajpoots, and proper Hindus. In the period of the philosophic development of Greece, many of the leading Greeks visited India, and brought back knowledge of astronomy, medicine, mathematics, and other branches of science. Thus all Greek science was of Indian origin, either direct or through the Egyptians, Phœnicians, or Persians.

Similarly, Roman science was of Greek origin: the skilled

craftsmen, statuaries, freedmen, and mass of the servile population of Magna Græcia and other parts of Italy were Greeks; and even Etruscan civilisation came from Asia Minor at an early period. But the development of the arts and sciences took place more fully away from the seat of their origin. "It is a settled appointment of nature that soft soils should breed soft men, and the same land should never be famous for the excellence of its fruits."[1] And when once the rudiments of science reached those more barren regions which in the first place made men industrious, sober, hard-working, courageous, and warlike—for they were forced to obtain by their own exertion that which the earth denied them—then it was that newly acquired knowledge was practically applied, and became an active stimulant to civilisation.

The peaceful period of the sea-power of the Phœnicians which preceded their military command of the sea, or that command of the sea in which they actively participated, was responsible for the introduction of civilisation to those countries with which their merchant ships traded. These arts, sciences, and crafts, introduced from India into their own barren country and there developed, were again introduced, together with their wares, the manifestation of their knowledge and skill, into those oversea markets which the enterprise of their seamen had discovered and opened for them. The situation of Phœnicia was admirably adapted to extend their commerce and their mode of civilisation. By inhabiting, as it were, the confines of Africa, Asia, and Europe, the Phœnicians were enabled, through the means of their mercantile marine and commercial intercourse, to communicate to every nation the luxuries, arts, and crafts of other nations as well as their own.

They, as a people with the true sea-sense, not only availed themselves of the numerous creeks, harbours, and ports which nature had liberally bestowed upon their narrow territory, but improved them in such a way that they became no less remarkable for their strength than

[1] Herodotus, "Calliope."

for their accommodations. Their manufactories acquired so great a superiority, that whatever was elegant or pleasing in art was by the ancients termed Sidonian. They were a people of merchants, whose aim for the empire of the sea and an exclusive right to commerce carried the seed of civilisation to regions where it was before unknown, and there it took root and spread and improved. The daring and enterprising spirit of the Phœnicians was not confined to the Mediterranean, nor even the western ocean, for, having secured for themselves several commodious harbours towards the bottom of the Arabian Gulf, they established a regular intercourse with Arabia, the continent of India, and the eastern coast of Africa. Being in possession of Rhinocolura, the nearest port in the Mediterranean to the Red Sea, they were enabled there to reship the cargoes which had been brought by land from Elath, the safest harbour in the Red Sea, towards the north, and thus to transport them to Tyre, from whence they were distributed over the world. To more fully appreciate the influence the sea-power of Phœnicia had in the spread of civilisation, and in its improvement by the interchange of its various modes or forms in vogue in the different countries, whose intercourse with each other was in the hands of the Phœnicians, we have only to consider the advanced state of civilisation of China at a period when the rest of the world was groping in the darkness of barbarism, and to remember that this civilisation stifled itself through inability to extend beyond the confines of that country. Had the Chinese possessed the sea-sense and become a sea-power, their civilisation would have been strengthened by resistance and active achievements rather than have fallen into decay by passive submission.

It may be said that civilisation was dormant for the eight hundred years prior to the passage by the Phœnicians of the Straits of Gibraltar. For that long period the mind of the then civilised man had been cramped within the shores of the Mediterranean; but once the open sea was made, the mists of mythology cleared away, and from that

date we can mark the rapid strides made. As the sea-power of Phœnicia was a heritage enjoyed by their successors the Carthaginians, so too did they inherit and improve upon the former's civilisation ; but it was left for the Greeks to give it the great impetus. The Hellenic culture, which left its impress upon mankind, would have lived and died unknown but for the sea-power of the Greeks, which, as in the case of Phœnicia and Carthage, wafted it to other shores, where it was to take root and flourish. Originally the residents of Greece, uncouth in their manners and belief, were deficient, if not utterly lacking, in maritime science. Enlightened through association with Phœnician and Egyptian immigrants, they seem first to have attained a faint appreciation of its utility. It is not surprising that the Greeks, a people situated in a mountainous country with a relatively long stretch of coast-line deeply indented, and with numerous islands near the shore, should have rapidly adopted and improved this method of intercourse so soon as they were awakened to its advantages. Navigation, when once understood, appealed to a people until then confined to a limited area. An innate desire to exchange their commodities, stimulated by a wish for adventure, incited them to train themselves on the sea to such a point that at last they became the greatest sailors of their era. Having tasted the sweets of conquest, they became inspired with the desire for more extensive power ; and they now appreciated the benefits to be gained from wider relations with other portions of the world, and likewise began to realise the importance of the command of the sea. Each colony placed by Greece became in turn a centre from which Hellenic civilisation spread yet farther afield.

Little did Julius Cæsar realise that the small seed of civilisation which he planted in Britain upon his conquest of a then insignificant island would mature and grow to the remarkable extent which it has done. Whilst the sea-power of the Phœnicians laid the foundations of civilisation along the shores of the Mediterranean, from whence it

spread inland, the sea-power of Greece advanced civilisation a very considerable stage, more especially in learning and culture. The Greeks may be said to have prepared the ground for the more practical work of the Romans. As the sea-power of Rome gained the ascendancy, their colonies carried civilisation far inland, into the mountain fastnesses and along the river courses of Northern Europe. Like the tentacles of some tenacious vine, they never released their grasp of the spot when once they struck root. These colonies, planted by her sea-power, were her bases of supply; thence along the routes leading to the capital came the grain and other necessaries and luxuries of life, the production of which called as much for a form of civilisation as did the consumption. The characteristic of Roman civilisation was unity; and in this respect, as in many others, it differed from that of the Greeks. The Grecian colony started with the standard of civilisation of the mother country, which it either improved upon, as in the case of Syracuse, or debased, as in the case of Corinth; but in all cases the colonies of Greece went their own way in every department of enterprise. The colonies of Rome, on the contrary, were subject and obedient to the personality of Rome. Rome was their standard of civilisation, and thus Roman civilisation was uniform. Rome, it is true, had the advantage of being able to profit by the experience of her three predecessors in civilisation—Phœnicia, Carthage, and Greece. The two former lost their possessions by detaching them too much from themselves and neglecting to blend their common interests, and they thus failed to rise to empire; they had neglected to secure the ground sea-power had given them. Greece spread out her resources, much in the same way as certain British statesmen wish to do to-day, in a far too generous way, and, failing in centralisation, perished. Rome was not too far removed from her by time to neglect the lesson, and therefore retained her conquests through many centuries by never forgetting to bind securely every section of the empire to herself by setting the standard of civilisa-

tion from the capital; but it was chiefly due to a more settled condition of things in the Roman Empire, absent in the infant Republic, which encouraged a considerable advance in civilisation.

Owing to the sea-power of the Romans, those famines which had before been so prevalent were seldom or never experienced, for the accidental scarcity in any single province was immediately relieved by the plenty of its more fortunate neighbours. Luxury, one of the least attributes of civilisation, spread throughout the empire by the maritime energies of the Romans. Every year, about the time of the summer solstice, a fleet consisting of 120 vessels sailed from Myos-hor-mos, a port of Egypt in the Red Sea. By the periodical assistance of the monsoons, they traversed the ocean in about forty days. This fleet made the coast of Malabar or Ceylon, and here the merchants from the more remote countries of Asia awaited their arrival. The fleet returned to Egypt in December or January; the rich cargoes were transported by camel trains from the Red Sea to the Nile, and thence down the river to Alexandria, thence by ship to Rome. The cargoes were mostly luxuries consisting of silks, precious stones, and aromatics, for which were exchanged such wares as Italian and other wines, brass, tin, lead, coral, glass, dresses of one or many colours, &c.; so that the civilisation of the East was being continually blended with that of the West. But little or no attention has been given to the important part played by sea-power in bringing this interchange of ideas, commodities, arts, sciences, and crafts, all of which assist in the making of civilisation.

The situation of Venice, like that of Phœnicia before her, fitted that maritime republic for the reception and the further development of the highest form of civilisation of the period. This she in turn disseminated through the agency of her sea-power. The intercourse which the Venetians had with many nations, introduced into her own country and among her own people a variety of new ideas which were quickly assimilated; and thus by labour, by travel, and by fortune the Venetians had become highly

cultivated. Their civilisation, their government, their skill, their breadth of knowledge, their financial astuteness, and more especially their sea-power and sea-sense, although much envied by their contemporaries, and, as has been already pointed out, the occasion of their hatred, caused them to be respected and admired.

Venice to-day is a mere shadow—her splendour has departed; and how few of us remember that the influence of the sea-power of that remarkable people is responsible for the advanced state of civilisation of the present age! If we pause to think upon the spade-work so laboriously undertaken in the cause of civilisation, if we consider the rare gems of architecture, still standing on those isles, now lonely in the immensity of waters, we will gladly pay a mental tribute to the sea-power which gathered together the parts of knowledge, pieced them together, and then distributed to others who still further advanced that form of civilisation handed to them. It is when sea-power is at peace that it gains victories as honourable and great as when at war, for it is then that the influence of sea-power is more directly felt in its civilising capacity, and it is the sea-power of the great commercial nations that the present age has to thank for the state of civilisation to-day. Like Phœnicia of old and the British Empire of the present, the corner-stone of Venetian prosperity was commerce, which in turn rested on the broad foundations of a colonial dominion, upon which she was enabled to build up her own system of civilisation.

But for the sea-power of Venice the Crusades would not have found their important place in history; and it is as well if we consider the effect of these wars upon civilisation. Some seventy years ago the Institute of France proposed a question, by which they invited discussion on all the advantages society had derived from the Crusades; and if we may judge by the essays which obtained the prize in this learned contest, the Holy Wars brought more benefits for posterity in their train than they produced calamities for the generations contemporary with them.

It may be that we have arrived at a favourable moment for appreciating with some accuracy the influence of the Crusades and the opinions of those who have reflected upon them before us. The Crusades, though unsuccessful in their object, indirectly worked a remarkable revolution in European society, the effects of which we are experiencing to-day. These apparently useless campaigns delivered Europe in general from the slavery of the soil; every man who took up arms for the Crusade became free, and the labourer in Italy began to till the earth on his own account. The military aristocracies and monarchies, being employed with their armed forces in distant expeditions, had no longer the same oppressive preponderance at home. The maritime preparations for the Crusades were undertaken by Venice and the cities of Italy—danger nerved the courage of every class—and navigation, by opening the exportation of manufactures, increased industry, wealth, and knowledge. Florence, for example, supplied all nations with her woollen stuffs, and Milan furnished all the arms used by the Crusaders and the princes of Europe. It was during the period of the Crusades that Italy crowded every European port with her galleys and every market with her merchandise. The wealth thus resulting from commerce served to divide and distribute the property of the land, and to multiply the number of those interested in maintaining the laws and independence of their country.

France, to an even greater degree than Italy, benefited from the Crusades; at the commencement of the twelfth century her monarchy was in a state of weakness and decay, but the glory which the French arms acquired beyond the seas gave a new lustre to the monarchy. Royal authority profited equally by the exploits and the reverses of the numerous warriors whom the Holy Wars attracted into Asia; the absence, the death, or the ruin of the great vassals permitted royalty to rise from the bosom of feudal monarchy and establish order in the kingdom.

For more than a century before the first Crusade the barons and prelates had ceased to meet in general assembly

to regulate the forms of justice and lend to the acts of royal authority the support of their political influence. At the second Crusade there were several assemblies of the great men of the kingdom, in which preparations for the expedition and measures for the maintenance of public order and the execution of the laws during the absence of Louis VII. were deliberated upon. In these meetings, which were very numerous, many misunderstandings that had existed between some of the great families for years were cleared up.

Thus the Crusades aided the Kings of France in resuming their legislative power, and the most enlightened part of the nation in recovering those ancient prerogatives which they had exercised under the children of Clovis and Charlemagne.

In order to perceive clearly what France owed to the Crusades and what her kings gained by taking part in them, it will suffice to compare Philip I., shut up in his palace in a melancholy manner during the Council of Clermont, excommunicated by Urban, condemned by the bishops, and abandoned by his nobles, with Philip Augustus, in the first place conqueror of Saladin in Syria, and afterwards triumphant at Beauvines over the enemies of his kingdom, or with Louis IX., surrounded in his reverses by a faithful nobility, ever respected by the clergy and the people, revered as the finest support of the Church, and proclaimed by his own age the arbiter of Europe.

The Crusades, alone made possible by the sea-power of Venice and the Italian cities, were the cause of a new order of things in France, and this new order of things altered the whole condition of society and materially advanced civilisation throughout the then known world; direct intercourse with the Moslem, and translations of Arabic books, introduced the germs of a new civilisation. European science was now newly based, chiefly on Moslem works and deeds, and in some degree on ancient Greek works, also on the spread of knowledge through the Byzantines to a small extent; the rest was a very slow and purely

European development of great extension, with some new and original branches of science before unknown.

Up to the fourteenth century the confines of navigation were only imperceptibly enlarged, but when once the Portuguese first undertook to widen the horizon of the universe to the slowly opening eyes of humanity, their maritime enterprise was quickly followed by the Spaniards and the Dutch. It must be remembered in this respect that at this period the art of navigation had considerably developed: the vessels were now of far larger dimensions, and the method of sailing them had undergone a marked improvement. Prince Henry of Portugal, named the Navigator, son of King John I. of Portugal, and, let it be remembered, the great-grandson of King Edward III. of England, early in the fifteenth century formed in Portugal a school of navigators, in which mathematicians and astronomers instructed the students in these sciences. He also encouraged his captains to bring home to Portugal specimens of the natives of those countries they discovered, for the purpose of learning the language and customs of the Portuguese and then being returned to their own country, in which they became valuable missionaries of civilisation. At this time the overland routes from the Red Sea and the Persian Gulf had been barred to Christians by the advance of the Mohammedans. India had an advanced form of civilisation of her own, but the large bulk of its inhabitants were forbidden by the tenets of the Hindu religion from crossing the sea; hence the whole of the carrying trade of the countries swept by the Indian Ocean was in the hands of the Arabs. The immense wealth derived from this trade, which poured into the markets of Arabia and Persia through the mouth of the Red Sea and the mouth of the Persian Gulf, made possible these Mohammedan armies, which were at this time such a grave menace to Europe. Christian civilisation was seriously threatened by the Eastern hordes that had, by the wealth derived from their command of the Indian Ocean, secured a firm footing in Europe. The discovery of the route to India by the Cape of Good Hope had the effect of immediately cutting the Mohammedan lines of

communication, and it was the death-blow to their power; it made secure for all time Christian civilisation, and placed Europe beyond the reach of Asiatic invasion, and saved her from the demoralising effects of Orientalism.

One of the epoch-making landmarks in the world's history was Vasco da Gama's voyage of discovery, which opened up the sea route to India. He left Portugal on 8th July 1497 with three vessels of 60 to 150 tons burden, and he anchored off Kappat, a small village eight miles north of Calicut, on 17th May 1498. Four years later the same commander was entrusted with a fleet of twenty-five vessels with which to drive the Mohammedan shipping from the seas and to secure the command of the Indian Ocean. Upon his arrival in India, da Gama declared war to the death against the Mohammedans, and carried on a vigorous naval campaign. He erected a fort and placed a small garrison at Cochin, and within twelve months was able to leave a few vessels under a subordinate to hold the Indian seas and return with his fleet to Portugal; but the Portuguese interests in the East were now of a permanent nature, and their defence called for a permanent fleet. Francisco d'Almeida was therefore appointed viceroy for a period of three years, and was despatched with a large fleet, together with 1500 men-at-arms. The new viceroy reached India in September 1507, and during his term of office he materially increased the dominion of the Portuguese. By 1540, within a period of sixty years, Portugal had risen from an insignificant state to a commercial empire which extended to the confines of Persia, and had its origin at the boundary line between the African continent and the European coast.

In addition to breaking the power of the Mohammedans and saving Europe, the sea-power of Portugal was responsible, by its conquest of the East and command of the Indian Ocean, for altering the seat of commerce and civilisation in the West. The course of Indian trade was radically changed, for the discovery of a sea route meant the abandonment of the overland routes; Lisbon immediately supplanted Venice as the principal receiving point of

Europe; it developed into a cosmopolitan city, a harbour in which the ships of all nations were found. Lisbon became the maritime junction at which the sea routes from the coast of Africa, Asia, Canton in China, and all the principal ports in Europe met. The commercial supremacy secured by Portugal for Europe has steadily increased, although it quickly passed from the hands of its founders.

The path by which civilisation advances often passes through scenes of bloodshed and disaster, and these, at first sight, appear to hinder rather than further the onward march; but the very death-struggles of a nation have resulted in scattering far and wide the germs of science, or of arts and crafts before unknown in the quarter in which they fell, and the civilisation of other lands has in this manner been stimulated and improved. Thus Portugal, upon her conquest by Spain in 1580, being reduced to abject poverty, was abandoned by many of her merchants, sailors, and craftsmen, who, secretly fleeing from the hated Spanish yoke, settled in England, Holland, or France, or the newly formed colonies of these nations, and added a more advanced knowledge to the civilisation of their hosts. The defeat of the Armada had made it impossible for Spain to hold the vast colonial empire she took over with Portugal; had it been otherwise the progress of civilisation would have been seriously retarded and the larger portion of the world would be groping in that state of semi-civilisation met with in those few colonies belonging to Spain at the present moment. None of those Englishmen who defeated the Armada in defence of their country could have foretold the great effect their victory was to have upon the civilisation of the future. Holland was the more immediate beneficiary of Portugal's downfall and Spain's lack of sea-power, for one Cornelius Houtman, a citizen of Holland, who had served most of his life in the Portuguese marine, piloted a Dutch expedition to the East, and secured for the Netherlands the greater portion of the Indies.

The part played by Spain in the discovery of the New World and as an instrument of civilisation was both sudden and rapid, though the dominion of the seas Columbus and

his marines gave her was never securely held and was but short-lived. The discovery of America acted as a remarkable stimulant to the already awakening maritime activity of Europe; still wrapped in mystery, the western hemisphere appealed to the imagination as nothing hitherto had done. It was at last realised that for the preceding two thousand years progress had been imperceptible, and then with little or no warning in 1492 the world appeared in an entirely different aspect. Calm reasoning now took the place of ignorant superstition. It hardly needed the exaggerated reports of the wealth to be found in the Americas to attract to the newly discovered continent bands of adventurers, who within eight years of its discovery had visited the entire eastern coast-line of South America and had discovered most of the West Indian Islands; by 1542 Spain had extended her absolute authority over the islands to the east of the Gulf of Mexico, over Mexico and Peru, the Philippine Islands, the West Indies, Florida, California, and the whole seaboard, both east and west of South America. In Mexico and Peru a form of civilisation differing from both that of Europe and of Asia was met with, but the accumulation of treasure and the primitive weapons of defence made them an easy prey to the adventurers.

The immediate effect that the discovery had upon civilisation occurred in the parent country, for it gave a strong impetus to industry; every department of industry felt the influence of the demand from newly discovered American markets; there likewise arose a demand which it was impossible to supply—for seamen. Within ten years of the discovery of the new continent, Seville, where the trade with America was concentrated, had 16,000 looms, employing 30,000 hands weaving cloths and silks. The dockyards of Spain were worked at high pressure, for at this time the Spanish marine owned over 1000 vessels; but a reaction was to set in, and from it England and Holland were to benefit and Spain and Portugal fall into decay. The acquisition of wealth from their American possessions was the sole aim and end of the Spaniards and Portuguese, and their unfortunate and disastrous policy was to acquire

this by the quickest possible means. They were not by nature business men, traders, or negotiators, and therefore the means by which they sought wealth from their newly discovered possessions was fatal to the growth of a healthy commerce and to the advancement of civilisation. The fabulous reports received in Spain from Peru and Mexico, and in Portugal from Brazil, had the effect of drawing thousands of citizens to those colonies from parent states not yet sufficiently developed to stand the drain; hence it was not long before the home industries languished, and both Spain and Portugal from being exporters of manufactures became importers, and principally from England and Holland. Indirectly, therefore, the discovery of the new world stimulated the industries of these two countries, and as the markets were beyond the seas the ever-increasing bulk of commodities called for a large and efficient mercantile marine, employing a very large proportion of the male population. The gold dug from the ground by the Spaniards and Portuguese in America found its way to England and Holland through the means of its traders and manufacturers, and was mainly used in building up the sea-power of these two nations. Neither Spain nor Portugal were trading nations, and therefore their policy of civilisation was that of the sword—a policy of degradation to the governing and the governed when not tempered with mercy. We see the result in South America to-day, after nearly four centuries of occupation by Spaniards and Portuguese. The South American Republics of to-day, the descendants of the two passive sea-powers of Spain and Portugal, are but little advanced in their civilisation from the days of their original occupation. Compare their civilisation with that of the United States of America, founded at a still later period by the militant sea-power England, and drawing many of its original citizens from the militant sea-power Holland.

The discovery of the sea route to India at a time when navigation was slow and the means for provisioning and watering the vessels very inefficient, called for the formation of stations along the route; we therefore find that St. Helena, the Cape of Good Hope, and Mauritius were settled.

The Cape developed into a Dutch colony and later came into British hands. Its history reflects sea-power, for it was occupied by the Dutch at a time when their sea-power was in its full glory, and it was taken by England when she wrested the sea-power from Holland. Her existence as a European settlement was caused by the requirements of sea-power for a victualling station on the long voyage to and from the East. In time the Cape of Good Hope became a centre from which civilisation spread, and to-day we find there a new-born nation of European descent, grown from infancy into lusty and promising youth in the short period of two and a half centuries: but more than this, for we find the healthy seed of civilisation, planted at the Cape of Good Hope in 1662 by the sea-power of Holland, and strengthened and invigorated by that of England, has spread and is spreading landwards, until now it reaches throughout the whole continent of Africa. It has been reinforced in its march from other points of the coast, but the opening up and civilisation of Africa has to be placed to the credit of sea-power.

The discovery and settlement of Australasia, occurring at a time when the arts and sciences had made some considerable advancement, and by reason, too, of the fact that the indigenous races were inconsiderable in numbers, allowed for a rapid spread of civilisation in the Pacific. The sudden appearance of advanced and practical Occidental civilisation on the Pacific coast of America and in Australasia had an immediate effect upon the Oriental form for long practised in Japan, and it was not long before a successful attempt was made to assimilate the more practical branches of both, with the startling result that a new power has arisen in the East—a nation whose foundations, like that of the British Empire, are laid upon sea-power, and whose civilisation was wafted to her over that element her sons are destined to control and through the agency of which they are to advance still further the cause of civilisation, to the discomfiture, it may be, of the Western races, unless the lessons of the sea be taken seriously to heart by that power still claiming its supremacy.

CHAPTER VI

EVOLUTION OF NAVAL WARFARE

The sea fights of the ancients did not constitute, in the properly accepted term, naval warfare; for these were purely military contests between soldiers acting for the time being on shipboard, and seldom far from land. Such contests were more in the nature of affairs of outposts between contending armies, who as a rule were onlookers lining the neighbouring shores. At that time the sea was not considered the grand arena for battle.

The sea was first resorted to by the Egyptians, in the peaceful capacity of a highway, and as a convenient means of transport. The structure of the early Egyptian vessels was extremely crude, and the method of working them no less defective. The mariners of those days were even unacquainted with such principles and operations of navigation as are now considered the very first elements; consequently they were uncertain and timid sailors, never losing sight of land, creeping along the coast from point to point. As Egypt was favoured with a fertile soil and mild climate, providing all the necessaries and most of the comforts of life, the inhabitants were not impelled by need to open up communication with distant neighbours; hence their navigation did not expand or develop. With the Phœnicians it was different: the character and situation of these people were as favourable to the growth of commerce and navigation as those of the Egyptians were adverse to it. By their energy and genius they endeavoured, and in striving succeeded, to make up for nature's neglect; they made the sea their handmaiden, and therefore became a people of merchants, who first won the empire of the sea. Their ships were the first to open up the ports of the Mediterranean,

visiting the western coasts of Spain and Africa there. We must bear in mind that maritime commerce created by necessity has always preceded naval power.

According to Pliny, the original ships of burden of the Egyptians were mere rafts, constructed with trunks of trees bound together, over which planks were fastened; these were first used on the Red Sea. An improvement followed by the construction of boats made of hollow trees and various materials covered with hides or pitch, and to these may be ascribed the origin of planked vessels. Improvement followed improvement, and in proportion as civilisation advanced, the inventive genius of man was called forth to push on an invention so essential to those communities where the advantages of commerce were understood, and numerous causes contributed to the origin of navigation and the construction of vessels traversing the sea. By the time Sesostris ascended the throne of Egypt (1491 B.C.), shipbuilding had advanced to the stage of enabling him to equip a sea-going fleet of 400 vessels, with which he made himself master of the Red Sea. These ships were built with ribs, though with very little keel, and were the first specially constructed for war purposes. They were built lower in the water than the ships of burden, and on each side, throughout the whole length of the vessel, a wooden bulwark, rising considerably above the gunwale, sheltered the rowers from the missiles of the enemy; the oars were passed through an aperture at the lower part. The length of the vessel was approximately 120 feet, manned with forty-four oars; it also carried one large square sail. The mast, instead of being single, was made of two limbs of equal length, sufficiently open at the top to admit the yard between them, and secured by several strong stays, one of which extended to the bow and others to the stern of the vessel; a rope was passed over the top of the mast, by which the sail was furled. The sail was square, with one yard above and one below. On deck there was a forecastle, in which was stationed a man with a fathoming pole; at the stern there was another deck cabin. The vessels

in the sea fight represented at Thebes confirm the statement of Herodotus that they were manned by soldiers, for the arms and dress are the same as those of the heavy infantry and archers of the army; the quilted helmet of the rowers shows that they also were part of the same corps. Besides the archers in the raised poop and forecastle, a body of slingers was stationed in the tops, where they could with more facility manage that weapon and employ it with effect on the enemy. The next important improvement in shipbuilding was made by the Phœnicians in their construction of biremes in about the year 700 B.C. At first these vessels were comparatively short but were decked, the rowers working in the hold, where they sat at two elevations, one above the other, the oars being passed through holes in the vessel's side. The Phœnicians were the first mariners to steer their vessels by observations of the stars, and were thus able to venture into the open sea on distant voyages. As they became more familiar with the deep, improvement suggested improvement in the build and rig of their ships. Their first sea-going vessel was the penteconter; this was a swift low vessel of fifty oars, suited either for trade or piracy, the latter occupation being the genesis of naval warfare. The penteconter was later superseded by the trireme, or galley of three banks of oars.

The trireme was the type of vessel used by both the Persians and Greeks and their allies at the battle of Salamis. The Persian vessel was built to carry a complement of 230, whereas the trireme of the Greeks, used so successfully in their decisive battle, was built to carry 160 rowers and forty soldiers.

The Persian fleet of trireme galleys engaged at Salamis numbered 1207, and were supplied, together with the crews, by Phœnicia, Syria, Egypt, Cyprus, Cilicia, Pamphylia, Lycia, Caria, Doria, Ionia, Æolia, and the Hellespontial towns; therefore it is but fair to suppose that there were as great differences in the build and handling of the vessels as in the character and language of the races manning the navy.

The allied Grecian fleet consisted of 380 trireme galleys, with a few penteconters. The Greek navy enjoyed the all-important advantage of being manned by men of one race and using a common language.

Prior to engaging at Salamis, Themistocles reduced the complement of soldiers from forty to eighteen in each trireme, his object being to lighten his vessels, for at that period small sea-room sufficed in comparison to what modern fleets require, not only because of the smaller size of the vessels, but still more because of the different manner of working and fighting them. The mode of engagement called for little space; they mainly depended upon the ram, and they always advanced to the attack in line of battle formed abreast. The advantage manœuvred for was to bring the bow to bear directly upon the enemy's broadside, the next to secure the means of an oblique impetus, which would carry away the enemy's oars. The success of the former manœuvre would in most cases sink the enemy, and if the latter the enemy would become unmanageable, and thus opportunity was given for further ramming; hence the importance of oars in these actions, for like steam of to-day, by this means of propulsion alone attacks could be made, warded, or avoided in any direction. Themistocles appears to have been the first to appreciate the full advantage thus to be obtained. Although at the time of Salamis missile weapons were in general use among all nations, it had been the general practice of the Greeks to grapple ship to ship, the engagement resembling an action on land, the contest being decided by the superiority of the heavy-armed soldier on deck. It was partly for this reason that the Persians had increased their triremes' complement by thirty heavy-armed soldiers, and they appeared to have depended greatly on this increase of strength for certainty of victory. Themistocles' experience of the naval skirmishes off Artemisium during the month preceding Salamis led him to a contrary principle: he would depend less upon arms wielded by the hands of individuals than upon the vessel itself, as one great and powerful

weapon, in a squadron. As a combination of such weapons, therefore, it was important to have his vessel light and unencumbered; he therefore reduced his complement of soldiers. The event of the battle of Salamis was really decided at the first onset, and its result, like that of the British victory over the Spanish Armada, was more a tribute to superior seamanship and mobility of the vessels than to tactical combinations of ships and squadrons. By superior seamanship and the greater mobility of their vessels, the Greeks were enabled to make more deadly use of the ram, and were themselves enabled to evade all attempts to grapple and board made by the Persians. The control of the fleet by signalling the instructions of the admiral during battle was not yet fully understood. Prior to engaging at Salamis, Themistocles held a council of war, at which the final instructions were given to the galley commanders as to the tactics each was to employ; but these instructions could not anticipate the changing phases of battle; hence much had to be left to the initiative of the commanders.

It is not until the naval actions between the Greeks themselves in the Peloponnesian War that we discover any marked improvement in naval discipline and concerted action of ships by squadrons and their control by signals during battle. In the year 432 B.C. a naval battle between the Corinthians and the Corcyrians, one of the first naval actions of this protracted civil war, is notable for having been fought with some show of discipline between vessels, and for the free use of visual signalling. The Corinthian fleet, numbering 150 ships, was divided into four squadrons, each under the command of an admiral, the admiral-in-chief commanding the left squadron. The Corcyrian fleet numbered 110 ships and was ranged in three squadrons, each under the command of an admiral, the senior being in personal command of the centre squadron. In this battle the commanders-in-chief transmitted their orders to their fleets by means of a gilded shield hoisted at the masthead. During the elevation of this the fight continued,

and by its depression or inclination towards the right or left the ships were directed in what manner to attack or retreat; in addition to this manner of visual signalling, trumpet calls were passed from ship to ship.

The continual sea fights of the Greeks during the Peloponnesian War brought about many changes in the construction of their vessels, improved their seamanship, and some considerable advance was made in naval tactics.

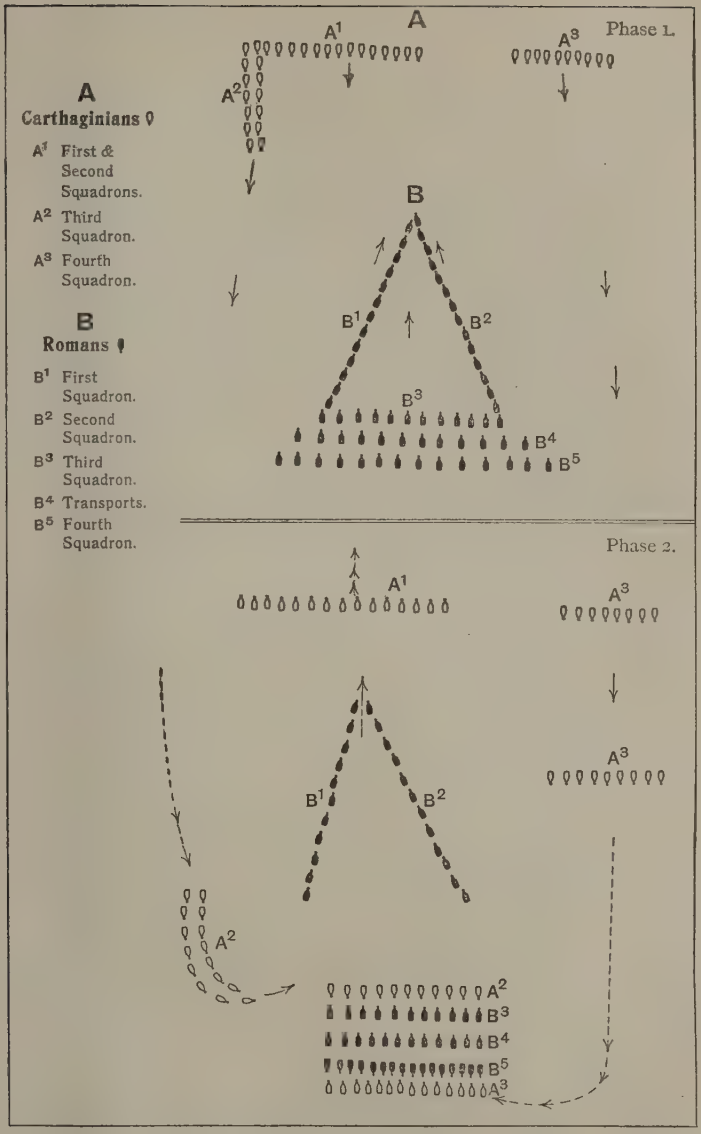
During the Peloponnesian War the officers of the navy were divided into two branches: the naval officer proper and that class which is represented to-day by the marine. The naval officer was responsible for the navigation of the ship, for manœuvring it in battle up to the moment of grappling; the marine officer's duties commenced with boarding the enemy. The admiral might belong to either of these branches, or even to the army; his commission varied according to the times and circumstances; sometimes he was in supreme command, but more often his authority was divided with one or more colleagues, as in the case of Alcibiades, Lamachus, and Nicias, who held equal power in the Athenian fleet in the expedition to Sicily. The office of admiral at this time was one of political favour. According to the Lacedæmonian law, it was forbidden that any person should hold the office above once. This, as experience showed, had a bad effect upon the efficiency of the navy, for it was continually in the hands of raw and inexperienced commanders.

The Peloponnesian War was mainly a naval war, and its conclusion left the victor supreme at sea. The Athenian navy, strengthened by the protracted war, was a different instrument in its strength and efficiency to what the outbreak of war had found it. The galley had undergone numerous changes, both in construction and equipment. It is noticeable during the long naval struggle between Athens and the other Grecian states, that the former, more accurately estimating the power of the navy as a weapon, was continually striving for the maximum in strength and of mobility in the construction of their vessels; and just as

naval architects find to-day, it was even then extremely difficult to obtain the one quality without a considerable sacrifice of the other. The lessons learnt by the Athenians in the Peloponnesian War were likewise taken to heart by their own colonists the Syracusans, and were in turn used against the navy of the mother country. At the battle of Syracuse, in which the Athenian navy was destroyed, the Syracusans used a smaller vessel, more rapid in manœuvre but considerably strengthened in the bows.

The Romans made a considerable contribution towards the advancement of naval efficiency. They, benefiting by the drudgery of the preceding sea-powers, commenced their naval career at that stage at which the quinquiremes had been reached. The Romans, bent on the conquest of Sicily, yet sensible that whilst Carthage held the command of the sea such must remain impossible until they created a navy of their own of sufficient strength to defeat that of Carthage, decided upon the bold step of becoming a naval power. At this time they were not possessed of a single ship which they could call their own, for the ships which had transported their forces into Sicily had been hired from their neighbours. They were totally inexperienced in maritime affairs and had no carpenters efficient in shipbuilding, and did not even know the shape of the quinquireme or galley with five benches of oars. One of these vessels belonging to the Carthaginians was wrecked on the coast of Italy in the year 487 B.C., and this was taken as a model. They now applied themselves with remarkable industry and ardour to the building of ships in the same form, and in the meantime got together a set of rowers who were taught an exercise and discipline unknown to them before. These men were instructed on shore, benches being erected in the same order and manner as in the galley; the rowers were seated thereon and went through by word of command the exercise of rowing. In the incredibly short period of two months, one hundred galleys of five benches of oars and twenty of three benches were built, equipped, and manned. Realising their inferiority to the Carthaginians in seamanship, they

cast about for some means of compensation, and hit upon the boarding-plank corvus (*i.e.* crow or crane). This engine was hinged to the deck near the foot of the mast and had powerful grapnels at the opposite end; by means of a rope passed through a pulley it was kept raised against the mast until near enough to the enemy; it was then suddenly lowered and grappled the gunwale of the opposing galley, and now served as a bridge by which the heavily-armed Roman soldiers could board two abreast. This fleet of two months old put to sea, and almost immediately encountered the Carthaginian fleet of 130 sail near the coast of Mylæ. The latter, thoroughly despising a people who before had refused to take to the sea, never anticipated the slightest difficulty in the complete annihilation of the Roman fleet; they were therefore completely surprised when the boarding-bridges were dropped down and forcibly grappled their vessels in spite of all resistance; these engines were entirely unknown to them. This, their first naval action, was a complete victory for the Romans, and resulted in the loss of eighty vessels to the Carthaginians. During the two years following, the Romans grew still stronger at sea by their success in several engagements. The quinquireme was the type of vessel used throughout the Punic Wars, and little alteration was made in its construction; it was powerful in build, handy in manœuvre, and carried with ease a complement of 200 persons, though by the time Rome was in a position to fight the decisive battle of Ecnomus the normal complement was 420 men, 300 of whom were rowers. The naval battle of Ecnomus has not drawn that attention from historians which it deserves. It stands out as one of the decisive battles of the world; it was the death-blow to Carthaginian sea-power, as it established the sea-power of Rome. It furthermore is a testimony of the great naval skill of the commanders of the two large navies engaged, and is evidence of the discipline and training of the naval forces of those days. By referring to the illustration it will be seen that the Carthaginian scheme for dividing the Roman fleet was



THE NAVAL BATTLE OF ECNOMUS, 256 B.C.

adroit in its conception and was skilfully executed, and that the right and left squadrons obeyed the preconceived plan, even to detail, as skilfully as could be expected from the most up-to-date naval commanders of the present day. The Roman battle formation was in itself an innovation, which was again adopted by Rodney nearly two thousand years later. The Roman fleet consisted of 330 vessels, carrying 140,000 men. The Carthaginian fleet consisted of 340 ships and 150,000 men. The Romans advanced with their first and second squadrons in column in the form of a wedge forming the two sides of an acute-angled triangle. The third squadron in line formed the base of the triangle, extending in breadth from the rear of the first squadron to that of the second. The third squadron towed the transports behind it. In rear came the fourth squadron, which covered the line of transports.

Three squadrons of the Carthaginian fleet were drawn up in line, the left squadron being removed some distance from the centre, so as to overlap the enemy's right, and turned towards them ; the fourth, or right, squadron was in column, and overlapped the Roman left. The first and second squadrons of the Romans attacked the Carthaginian centre, which purposely gave way and retreated some distance, drawing the enemy away from the main body ; they then hove to and attacked. In the meantime the Carthaginian left wing swept round and attacked the Roman rearguard, whilst at the same time the Carthaginian right wing closed in upon the Romans' third squadron and the transports. Thus the battle proceeded in three separate actions, each taking place at some distance from the other. The result for some time was in doubt, for the forces were nearly equal. The ships of the Carthaginians were lighter and more mobile, and every endeavour was made to break off the Roman formation and take their vessels in detail, but without avail. The Romans, realising the superior seamanship of their enemy, kept their own squadrons together and rendered mutual assistance, and, attacking together, made deadly use of their boarding-machines.

At one time it seemed as if the third and fourth squadrons, hampered as they were by the transports, would be broken by the Carthaginians; but the first and second squadrons, under the personal command of the consuls, succeeded in defeating their opponents, and were then able to return to the aid of those in the rear, who were by this time sorely pressed. The battle was now won. The Romans captured sixty-four vessels, with their crews, and sunk twenty-four. In no naval battle before or since can we find anything like the same number of vessels or men engaged, and it is difficult to cite any subsequent naval action where the same tactical skill has been displayed by both opponents. The present generation owe a deep debt of gratitude to the memory of Polybius, for to that historian are we indebted for having placed on record the details of the most important naval action yet fought—an action the influence of which is felt to this present day; an action, too, that introduced naval tactics, which in later years played their part in determining the course of decisive battles and the bringing into being the maritime empire of Great Britain; a battle in which were engaged 600 vessels carrying 300,000 combatants. Apart from the influence which its result exerted upon the course of civilisation, it is one of such importance that we cannot afford to lose it in oblivion, and Ecnomus must stand as the most important naval battle of history.

The long-uncontested command of the sea held by Rome prior to Actium had not stimulated a naturally territorial people in sea-craft; and beyond the importance of the result of Actium, this naval action discovers no advancement in naval evolution. After the Punic War, in which the use of their boarding-engine gave the Romans command of the sea, the larger-rated vessels—quinquiremes, hexiremes, octiremes—continued in general use; but Actium sealed the fate of these cumbersome ships, for the light Liburnian bireme was responsible for the defeat of Antony's fleet. Their superior mobility enabled them to choose the point of attack and strike at will; being low

in the water, their rams made deadly havoc of the larger and slower vessels. The larger classes, though still employed as guardships, for some time fell into disuse, and the art of building them and the knowledge of their equipment were lost.

It is to be regretted that there is little evidence extant by which we are able to trace in its successive stages the transition from the ancient ship of war to the mediæval galley. The sailing vessels of the early Roman Empire were the direct precursors not only of the mediæval merchant vessels, but also of the large sailing vessels which, after the invention of gunpowder and the consequent necessity of carrying marine artillery, superseded the long, low galleys propelled by oars.

For many centuries after Actium a cloud of obscurity rests on naval history. Nothing is known of the character or composition of the fleet with which Riciner defeated the Vandals in the fifth century of our era, nor have we any details of the fleets of the Byzantine Empire until the end of the ninth century. It is then that a little light is thrown upon the subject by the *Tactica* of the Emperor Leo. There are found directions as to the constitution of the fleet. He prescribes that dromones—that is, triremes—are to be got ready in the dockyard with a view to a naval engagement. These vessels are not to be too light or too heavy ; they are to carry siphons for the projection of Greek fire ; they are to have two banks of oars, with twenty-five rowers apiece on each side. Some of the vessels are to be large enough to carry 200 men ; others are to be smaller, like those called galleys, or one-banked vessels, swift and light.

The mediæval galley, as used and improved by the Venetians and Genoese, was essentially a one-banked galley ; the use of the longer oar, or sweep, took the place of the small paddling oars of the ancient vessel. The increased length of the oar, requiring for its efficient working greater power than one man could employ, led to the use of more than one man to an oar. This called for the placing of

the weight at a greater distance from the man, and was obtained by the invention of the apostis. Upon the hull was laid a framework which stood out on either side from it, giving a strong external timber running parallel to the axis of the vessel, in which the thwarts were fixed, against which the oars were rowed. This arrangement gave a greater length inboard for the oar as compared with that of the ancient vessels. On the inner side, rising inwards towards the centre of the decks and inclining upwards, were the banks or benches for the rowers, arranged *à la scaloccis*, who could each grasp the handle of the oar. Whilst the stroke of these rowers was no doubt slower than that of the ancients, it was yet much more powerful.

The Byzantine galleys carried siphons for the use of Greek fire; here we see the transition from the javelin, lance, sword, and bow to the more powerful weapons of precision. It has been asserted that the Arabians used gunpowder at the siege of Mecca (A.D. 690), but it is highly probable that Greek fire was meant, for this appears to have been the general name given to several different combustible mixtures. Greek fire was introduced into Constantinople from the East about A.D. 673; it was discharged by means of various engines of war, or attached to arrows or darts. Its actual destructive effect appears to have been very inadequate to the terror it occasioned. The ingredients of this Greek fire are still in doubt, one description giving resin, sulphur, naphtha, and saltpetre. Although the early history of gunpowder is lost in obscurity, it appears most probable that its employment as a propelling agent originated among the Moors or Saracens, and from there spread eastward as well as northward into Europe. It is difficult to overestimate the importance of the invention of gunpowder. Not only has it revolutionised the methods of warfare, and given the forces of civilisation untold advantages over mere numbers and savage valour, but it must be remembered that the very improvements by which modern science has made military machines more deadly, tend to make war far more expen-

sive, and therefore prevent it being undertaken so frequently or so lightly as of old.

About the beginning of the fourteenth century large cannons were used on the Continent in siege operations, and were first used in England in 1338. In naval warfare we find that carronades were used on board the French ships at the battle of Rhodes in 1372, and that bronze cannons for use on shipboard were cast at Augsburg in the year 1378. With the adoption of guns for naval warfare the necessity arose for a considerable change in the construction of ships of war, and thus the galleass was evolved from the galley. In the early stages of transition from galley to ship, the galleass—a large heavy galley, three-masted, and fitted with a rudder, since its bulk and weight compelled it to trust to sails as well as oars—was the intermediary between the galley and the galleon, and as time went on it became more and more of a sailing-ship. It had light bulwarks, with loopholes for muskets and partial cover for the crew. The Portuguese galleys in the Spanish Armada mounted each 110 soldiers and 222 galley-slaves; but the Neapolitan galleasses carried 700 men, of whom 130 were sailors, 270 soldiers, and 300 slaves of the oar. The Genoese and Venetians set the models of these vessels, and the Italian terms were used in all European navigation till the northern nations took the lead in sailing vessels. The wars in the early part of the sixteenth century between the Italian states and Turkey were mainly responsible for the transition of the galley into the ship; and throughout this century the naval actions were fought with hybrid fleets made up of galleys, galleasses, galleons, and brigantines.

The first naval action of importance in which guns were used was fought off Prevesa, opposite the promontory of Arta, or Actium, where Antony suffered his memorable defeat. In the summer of 1538, the Turks, under the famous Admiral Barbarossa, were devastating the Venetian possessions; he had under his command a fleet of 122 vessels, made up of galleys, galleasses, galleons, and brigantines.

This fleet was opposed by an allied fleet of eighty Venetian, thirty-six Papal, and thirty Spanish galleys, together with fifty sailing galleons—or nearly 200 ships of war, manned by 60,000 men, and mounting 2500 guns. Upon Barbarossa discovering the strength of the allied fleet, he made for the spacious Gulf of Arta, as, realising that he was outnumbered, a fight in the open sea might have resulted in the total destruction of his fleet; but, secure in an ample harbour, on a friendly coast, behind a bar which the deeper vessels of the enemy could not cross, he would be able to select the moment for attack and take the enemy at a disadvantage. Doria was in command of the allied fleets, and arrived off Arta on the 25th September, but owing to the composite nature of his fleet he was seriously hampered. The slightest weather dispersed them. Owing to the imperfect knowledge of sailing, great sea-room was required for the ships; and as his heavy artillery was on those vessels, he could, in the position he had taken up, never rely on having it in action simultaneously. Unable to blockade the Turkish fleet or to entice it out of its harbour of vantage, Doria retired. Barbarossa set out in pursuit, and came up with the Christian fleet on the morning of the 28th. This was now in disorder, for the sailing-ships had failed to keep up with the oars; the Venetian carracks were becalmed off Zuara, miles to the northward of the main fleet. Barbarossa attacked in line, taking the Venetian carracks first. His galleys, galleots, and brigantines were kept at bay for some three hours by the guns of the Venetians, which, well handled, aimed low on the water to gain the *ricochet*, and did great damage among the attacking galleys. Doria endeavoured to tack down to the assistance of the Venetians, but was unable to do so owing to the unwieldy nature of his vessels; nor would the galleys attack unaided by the larger ships mounting guns. The Turks won the action owing to the more even composition of their fleet, a preconceived plan of attack, uniformity of action, and strict obedience to the will of one commander—a quality seldom, if ever, properly observed among allies. The Turks

only took seven galleys and sailing-vessels; but they held the sea, for the allied fleet retreated in haste upon Corfu. Although Doria was chief in command of the allied fleet, yet Capello led the Venetian squadron, and Grimani the Roman squadron; and as by this time democracy had seriously undermined the discipline among all classes in the Italian states, there was considerable dissension among these three leaders. This only added to the confusion caused by the composite nature of the fleet. That Doria was able to retreat with practically the whole of his fleet, is due to the fact that his guns, mounted on his larger, though slower, vessels, were able to withstand any serious attack.

From 1538, until defeated at Lepanto in 1571, the Turks held the command of the sea. Since the battle of Prevesa the mutual jealousies of the Christian maritime states had precluded an alliance strong enough to encounter the Turkish navy; but Pope Pius V. worked unceasingly to unite the allies and to smooth away those jealousies responsible for Mohammedan sea-power, and at last he succeeded in drawing the navies of Southern Europe together; and then, remembering that divided command had been mainly responsible for Prevesa, he exerted his prerogative as Vicar of God, and named as sole commander-in-chief of the allied fleets Don John of Austria.

On the 16th September 1571, Don John set sail from Messina to seek the Turkish fleet. His command consisted of 286 vessels, comprising six galleasses, 209 galleys, the rest being galleots, galleons, and brigantines; this fleet carried 29,000 men. The Turkish fleet, under Ali Pasha, lying in the Gulf of Lepanto, numbered 208 galleys and sixty-six galleots, manned by 25,000 men. On the 7th October the two fleets came in sight of each other between Ithaca and the Gulf of Lepanto. At eleven o'clock, whilst still separated by some miles, a dead calm set in; both fleets shortened sail and took to the oars. The Turkish fleet rapidly formed into line of battle, and advanced to the attack. The allied fleet was much slower in forming line;

most of the galleasses and galleons were behindhand. Barbarizo, commanding the left wing, hugged the coast; Don John, commanding the centre, kept touch with him. The right wing, under Giovanni Doria, tacked out to sea, for the unauthorised purpose of outflanking the Ottoman left, making too much sea-room. This squadron was unable to get back in time to take part in the battle; this manœuvre was responsible for nearly losing the day. The order of battle now was—the allied fleet in line, the right squadron of fifty galleys, galleots, &c., under Doria (which failed to come into action); Don John commanding the centre, of sixty-two large galleys; the left squadron under Barbarizo, commanding fifty-three vessels. The six galleasses were ranged in front of the line, each with 500 arquebusiers on board. The remainder of the vessels formed the reserve, under the command of Alvaro de Brozan. The line was over one mile in breadth.

The Turkish line was similar to that of the allied fleet, excepting that there were no galleasses. Their reserve was marshalled immediately behind their centre. The galleasses turned aside, and divided the impetuous rush of the Ottoman galleys; the fire from these large vessels demoralised the Turks, and threw them into some confusion before they met the allied line of battle. The allied left wing, after a fierce hand-to-hand struggle, repulsed the Turkish right wing, and drove them to the shore; both centres were longer in coming into action. The Christians had the great advantage of wearing armour and using fire-arms from behind bulwarks, whereas the Turks were unprotected, and the majority were using bows instead of guns. Whilst the centres were hotly engaged, the Turkish right wing, seeing that the allied left, under Doria, was well out to sea and unable to tack back, doubled back and bore down to the assistance of the centre; but the allied right, having repulsed its opponent, reinforced Don John in time. The Turkish fleet was almost annihilated; 130 galleys were captured, besides galleots, and fifteen were burnt or sunk. It is estimated that 30,000 Turks perished.

The allied fleet lost 7500 men. The skilful disposition of his galleasses mounting heavy artillery greatly assisted in Don John's victory. The rapid rally of the allied right wing, after defeating the Turkish left and bearing down in good order to the assistance of the centre at the moment when it was hard pressed by both the Turkish centre and right wing, compensated for the gross error of, and the disobedience of orders by, Doria, in depriving the fleet of his squadron.

Although the Ottoman fleet was restored, their prestige was gone; the Western races had beaten the Turk once, and would beat him again.

The invention of the mariner's compass in the year 1302 revolutionised navigation. Within half a century of this discovery seamanship assumed a bolder and more adventurous character. The facility of mutual communication which navigation began to open up between remote countries was conducive to the benefit of individuals and the general advantage of nations. From this era may be dated the commencement of that kind of intercourse between the inhabitants of different countries which properly deserves the appellation of commerce, and which called for considerable advancement in the construction, seaworthiness, and carrying capacity of vessels. Such evolution as had taken place in naval warfare prior to the discovery of the mariner's compass was slow and tedious, and had been confined to the Mediterranean Sea, and sea-power had been the instrument of the peoples bordering that sea. With the invention of the compass, however, a rapid advance in seacraft was made by the more hardy people of Northern Europe. In reaching them, the sea-sense was acquired by Portugal and Spain, and was developed in these countries in advance of those more to the north.

In the year 1514 the ship of war underwent a radical change. Up to this year the guns were mounted *en barbette*, or so as to fire over the bulwark of the vessel, the ships having but one deck; but in this year Discharges, a French builder at Brest, invented portholes and several other im-

provements, which gave the power of adding a second tier of guns. The following year the *Henri-Grace-à-Dieu* was built on this model at Erith. This warship was of 1000 tons burden, having two whole battery decks, besides additional short decks or platforms, both ahead and astern. This vessel mounted eighty pieces of ordnance of almost every calibre in use. Fifty-four of these were pointed through the broadside ports, the remainder mounted either as bow or stern chasers; this vessel had four masts. It was in this century that ships became more seaworthy; and at this time Portugal, Spain, Holland, France, and England were developing commercial and naval fleets on their own lines, although the two former countries still retained man-power in several types of their vessels.

Barely ten years after Lepanto another decisive naval battle was fought. In 1588 the Spanish Armada was defeated and destroyed in its endeavour to invade England. We have briefly sketched this battle in a previous chapter; here we are more closely concerned with the type of vessels engaged, and the methods of fighting these. Of the British fleet there was one vessel, the *Triumph*, of 1100 tons, one of 1000, one of 900, two of 800, three of 600, five of 500, four of 400, six of 300, six of 250, twenty of 200, and the remainder were of inferior burden.

In the first volume of *Hakluyt's Voyages* will be found a very complete and detailed list of the Spanish fleet. The fleet, consisting of 150 sail, contained sixty-four galleons. These are described as of "an huge bigness" and of flat build, so high that they resembled castles, "most fit to defend themselves and to withstand any assault, but, in giving any other ships the encounter, far inferior unto the English and Dutch ships, which can, with great dexterity, wield and turn themselves at all assays."

Great and well-pitched cables were twined about the masts of their ships to strengthen them against the battery of shot. "The galleasses were of such bigness that they contained within them chambers, chapels, turrets, pulpits, and other commodities of great houses. The galleasses

were rowed with great oars, there being in each one of them 300 slaves for the same purpose, and were able to do great service with the force of their ordnance."

The fleet contained 1600 pieces of brass ordnance and 1000 pieces of iron ordnance; there were 120,000 shot of varying size of iron, lead, and stone; this did not include the ordnance for land purposes. Whilst the English fleet was uniform in type of vessel, the Spanish fleet was most composite, varying from the huge unwieldy galleon to the row galley. The defeat of the Spanish Armada is yet another illustration of the grave weakness of composite fleets when opposed to those made up of a uniform type of vessel. The ease with which the English effected their victory is evidence of superior seamanship, and the use they made of fire-ships to finally demoralise their enemy goes to show that at this period of her history England had acquired a considerable knowledge of naval warfare. The Spanish threat quickened the British sea-sense into life, and discovered some of the finest characters in the most glorious naval history the world has to show.

The defeat of the Armada gave England a fine conceit of her naval power; it created a strong feeling of superiority and self-reliance, which led her to reverse the tables and take the aggressive against Spain. This counter-attack upon Spain's sea-power and oversea possessions, as is shown elsewhere in this work, must be taken as the beginning of imperial expansion; but it also had the effect of developing the science of navigation, of improving the build and armament of our vessels, and of increasing the efficiency in seamanship. The lucrative trade which Spain had now built up with her American and West Indian possessions had developed a larger and a yet larger ocean-going vessel in which speed was sacrificed to carrying capacity. The defeat of the Armada having cleared the sea of Spanish warships for some time to come, laid open as prey the largest fleet of commerce carriers that up to then history had seen; this was readily pounced upon by the English warships, and these were altered and improved

as the exigencies of the service they were now called upon to perform dictated. In 1590 Hawkins and Frobisher commanded an expedition to the coasts of Spain, and then to the West Indies. This squadron was seven months at sea, and was one of the first ocean-going squadrons despatched from the shores of England. This expedition cut Spain's trade route with her American possessions and interrupted her commerce for one whole year. The next year placed on record a lesson in naval warfare which time and the consequent changes has not diminished in value. Spain, harassed by the continual depredations upon her sea commerce by the English navy, fitted out another Armada, for the purpose of retaliating by cross-ravaging. Lord Thomas Howard, commanding the English fleet, anticipating the object of the Spanish fleet, did a bold, though under the peculiar circumstances of the time correct, action; he left the Channel unprotected and sailed for the West Indies to interrupt Spanish commerce, which he knew was of far greater importance to Spain than the unprofitable ravaging of the English coasts, and must draw the enemy away from that purpose. He was correct in his assumption: the West Indian commercial fleet must be protected at any cost, and the Spanish fleet went to its aid. Howard was successful in capturing sufficient prizes to pay all the expenses of the expedition; Spain rescued her River Plate fleet, but had been forced from her original purpose. Spain failed to appreciate the nature of sea-power, intent upon her maritime commerce, and, developing her shipping solely upon those lines, she neglected to develop the necessary adjunct if that commerce was to live. To have preserved that sea-borne commerce and placed it upon a sound basis, it was essential for her to have fitted out an efficient fleet of warships and have sought out the English fleet and destroyed it. Instead of doing that which to-day is obvious—made so perhaps by the very lessons she has left us—Spain contented herself by convoying with weak squadrons these rich fleets. The adventurous and attractive career of a colonial life denuded the Spanish warships of efficient seamen, whereas the prize

money to be obtained in preying upon the Spanish treasure fleets drew to the English warships the very type of man required to make an efficient seaman. Admiral Colomb points out at this period of our naval history, that England failed to understand the position, and that she should have acted with the sole purpose of mastering the Spanish fleet as a necessary preliminary to the destruction of her commerce ; [1] but did England desire to destroy a commerce which was reaping her such a rich harvest ?

Spain, not realising the nature of naval warfare, neglecting the study of its principles—principles that at this period were steadily and surely developing—was so deeply immersed in the rapid acquisition of wealth, that she paid a severe penalty, for in 1596 Lord Admiral Howard, hearing that the navy of Spain was distributed on convoy duty, and that her coasts were open, sailed for Cadiz with a strong fleet.

In the conduct of this expedition we see an advance in naval dispositions and discipline, for most thorough precautions were taken by means of widespread videttes which captured or detained every sail that was met, and at daybreak on the 20th June the English fleet was off Cadiz ; a great number of Spanish merchantmen were taken and the town was occupied for fourteen days, and then ransomed for 120,000 ducats.

The net result of the harassing action of England against Spain during this period was, that whilst she kept the Spaniards busy at home, they dared not think of invading England or Ireland, for by their absence their fleets from America and the Indies would have been endangered ; thus we now see that the English were the first to appreciate the nature of naval warfare.

The opening of the seventeenth century found England leading in the efficiency of her ships of war. The means for striking the topmast had been devised, the chain pump invented, studding-sails, topgallant-sails, sprit-sails, and top-sails introduced, the weighing of anchors by the

[1] *Naval Warfare*, p. 13.

capstan invented. Cross pillars were added in all ships of war, which considerably increased their strength; these were fastened from the keelson to the beam of the second deck to prevent them from setting or giving way in bad weather. From this time English shipwrights assumed, and have since kept, the lead of all maritime nations. During this century British sea-sense developed rapidly, but more especially as a militant quality. Iron cannons were first taken into general use in the English navy at the end of the sixteenth century, and Raleigh complains of the manufacture and export from England to foreign countries of this type of ordnance, stating that unless Spain had had large quantities of our iron guns she could not have removed brass pieces from her ports to arm the ships of 1588 with, and he proceeds, "so by the latter [iron cannon] we might have commanded the seas, and thereby the trade of the world itself; but we have none, to our future prejudice; and how far to our prejudice I know not, forged hammers, and delivered them out of our hands to break our own bones withal."

Almost all vessels built in England at this time were constructed with a view to immediate conversion into ships of war, and in 1610 the English merchant fleet consisted of 600 sail, 200 of which were small vessels, yet capable of mounting six 9½-pounders of 30 cwt. These merchant vessels, by reason of their strength, speed, ready staying and turning, were more than a match for the more heavily built, square-rigged galleons of Spain or Portugal. The Royal Navy proper at this time consisted of forty ships averaging 500 tons burden. Up to the middle of the seventeenth century England had been content to develop her shipping mainly upon fighting lines, but as her seaborne commerce grew, the build of her vessels had to be increased, though their fighting efficiency was not sacrificed. Her long war with Spain had not since the Armada risen to a struggle for the command of the sea, for it had not been challenged, and England had naturally assumed it; but in the middle of this century naval warfare was to

undergo another change; sea-keeping warships had now developed, and two maritime nations had built up for each, large sea-borne commerce which brought their merchants into rivalry. These two maritime powers, England and Holland, being close neighbours, would necessitate the struggle for the command of the sea taking place in a somewhat confined area. When war broke out between these powers in 1652, the navy of England was superior to that of Holland, although her commerce was considerably less. Cromwell had reorganised the navy, and his autocratic rule founded upon strict discipline was felt both by the fleet and the army. The Dutch vessels, owing to the shallow nature of their coasts, were of less draught than the English and were consequently less weatherly.

The outstanding feature of this naval war is that the actions centred around the trade routes and in close proximity to the merchant fleets. Most of the Dutch commerce, both outward and homeward, passed to the north by the Shetland Islands; their merchantmen also used the Channel towards the Straits of Dover. The English dispositions were—(1) a fleet of sixty-eight sail under Blake proceeded northwards for the purpose of capturing or destroying the Dutch herring fleet off the Moray Firth convoyed by a fleet of Dutch warships; (2) a squadron under Sir George Ayscue to Plymouth to intercept the homeward-bound Dutch merchant fleets, and also to guard our own trade.

The result was that Blake was successful in his enterprise, capturing twelve warships and dispersing the Dutch fleet. With Ayscue it was different, for although he had forty sail, two being of sixty and eight of forty guns, he met De Ruyter commanding thirty ships, none of which had over forty guns; he was further hampered with sixty merchant ships, yet the result of the fight which followed was, if anything, in favour of the Dutch. We can see here how faulty were the dispositions—the handling of large fleets was not yet fully understood by English seamen. The most important part of the fleet was despatched upon a task the result of which could have no bearing upon

the war. The coasts of England were left open to the attack of the concentrated fleets of Holland; had communication been more efficient, this division of England's naval power would have proved fatal. The Dutch now realised that if they were to secure the command of the sea, they must abandon an indefinite policy of only fighting when on convoy duty, and that at the enemy's will; they appreciated one of the cardinal principles of naval warfare —the concentration of an overwhelming battle fleet, the seeking out of the enemy's battle fleet and its destruction. De Witt's strategy was good, but he failed in his design; he, in command of sixty-four sail, met Blake commanding sixty-eight sail. The fleets met and fought near the Kentish Knock, and continued fighting until night, when Blake was reinforced by Ayscue with sixteen ships; the Dutch thereupon retired. This naval battle was decisive only to the extent that it drove the Dutch back to defensive tactics and empowered the English to assume the offensive at will: but this they failed to do; they did not grasp the command of the sea which was at that moment theirs for the taking, and again they made the cardinal error of dividing their fleets. Twenty of Blake's vessels were detached for convoy duty, twelve others were sent to Plymouth for the purpose of harassing the enemy's commerce passing through the Channel, and twelve were under repair; this left Blake in the Downs with thirty-seven sail. The Dutch, hearing of the disposition of the English fleet, despatched Tromp with seventy-three sail to convoy 300 outward-bound merchantmen clear of the English fleet. Tromp engaged the attenuated fleet under Blake, and after a lengthy engagement the English were forced to retreat, Tromp having gained his object—that of passing his convoy out to sea in safety. If the command of the sea had proved itself of the utmost importance in the time of the galley and when the navigable area had been limited to coasting, the first war between the English and the Dutch revealed the truth of Raleigh's words, written half a century earlier, "Whosoever commands the sea, commands the trade; whosoever

commands the trade of the world, commands the riches of the world, and consequently the world itself."

This war, purely a naval war, came to an end after being waged for nearly two years, and peace was signed in April 1654, the result being distinctly in favour of the English, though the Dutch acknowledgment of the English dominion of the seas by striking to the English flag did not necessarily mean that the latter at this period held the command of the sea, as was proved later on. The success of the English and the failure of the Dutch in this war is attributable to the fact that the sea-borne commerce of the former was not out of proportion to its naval power, whereas that of the Dutch was proved to be greatly beyond the naval protection supplied. Owing to their tremendous commercial responsibilities, the Dutch were forced to disperse their navy to convoy their numerous fleets of merchantmen, the free and safe passage of which was vital to their natural existence; hence they were thrown back on the defensive. The English, on the other hand, not hampered to the same extent by a large sea-borne commerce, were enabled to concentrate a large fleet at such points on the enemy's trade routes as the changing phases of the war demanded. This advantage, which belonged to the English from the very beginning of the war, was not made the most of, and was apparently only understood at the end; for we see repeated dispersions of the navy at most critical periods of the war, and only towards the end concentration for the purpose of overwhelming the enemy at one of those many given points he laid himself open to.

This war of 1652–54 was the first purely naval war which is met with in history. In the nature of things it had to be so, for both combatants were a maritime people, one at least dependent upon sea-borne trade that had to pass the coasts of its enemy. The effectiveness of naval warfare when and where one of the combatants is wholly or mainly dependent upon sea-borne trade, as is the case of Great Britain to-day, was amply proven by the admission of the Dutch themselves that this naval war of less than

two years' duration brought them to greater straits than they were ever brought to by the eighty years of land war which they waged against the Spaniards. The principal lesson of their first war with the English was not lost upon the Dutch in their second war. In that war they had learnt to their cost that the power which is weakest finds it impossible to defend commerce and struggle for the command of the sea at the same time. England had also realised this lesson, taught, inadvertently at the time, by herself. Hence we pass another milestone in the progress of naval warfare. The second war between these two maritime nations was declared in January 1665. The Dutch now decided to concentrate all their naval strength, and endeavour to secure the command of the sea in one or more decisive battles with the naval forces of England. The States-General thereupon issued an ordinance by which all subjects of the United Provinces were prohibited from moving out of their ports, upon pain of confiscation of their ships and merchandise.[1] As the fisheries were also suspended, the naval force of Holland was left unhampered to operate in such manner as would bring the war to a speedy termination, with the minimum of loss to the inhabitants. At the outset the English Government was misled as to the dispositions of the Dutch fleet, and consequently hurriedly ordered the Duke of York to put to sea with a fleet consisting of 109 men-of-war and frigates, and twenty-eight fire-ships and ketches manned by 21,000 men. This fleet was more efficient than any other that had previously put to sea. The practice of placing guns of different calibres on the same deck had now for the first time been discontinued. This was a great improvement, for the variety of calibres had naturally occasioned delay and confusion in handing up and loading. Another improvement in the ships of this fleet was the removal of the greater part of the cumbrous mass of timber and ironwork previously seen at each extremity of the vessel. The ships were also relieved of the "murdering" or in-board pieces,

[1] *Life of Cornelius Tromp*, p. 261.

and of the standing bow and stern chasers. The ships of this fleet could now, for the first time, bring half the number of their guns into broadside action. The Dutch navy was quite unprepared for this war. The Dutch ships were inferior to those of their enemy; the guns and their mounting were likewise inferior. Political intrigue had appointed party adherents as naval officers—men of no experience in naval affairs. As a result of the first battle, three captains were shot for cowardice, and a number of others were degraded and dismissed. Not only were the Dutch unprepared for this war in the matter of the organisation, arming, and manning of their navy, but they were likewise found wanting in their dispositions; for the haste with which the English fleet put to sea prevented them from making that concentration they had prepared for by stopping for the time being the sailing of their merchant fleets. Thirty-one of the Dutch ships of war were in Zealand, in the Maas and the Scheldt, and the remainder were in Holland and Friesland, in the Texel and the Vlie; and before a junction could be effected, the English fleet arrived off the Texel and effectually masked both fleets. From this position of vantage the English fleet was driven by a gale, a contingency which would hardly occur in the present day. The Dutch fleet was therefore enabled to unite, whilst the English fleet put back into port to refit. The Dutch fleet, now united, consisted of 103 men-of-war, seven yachts, eleven fire-ships, and twelve galleots, mounting in all 4869 guns, manned by 21,631 men, and was formed into seven squadrons, each commanded by an admiral, the fleet being under the command of Admiral Opdam, who was, by-the-by, a cavalry officer. Opdam sailed in search of the enemy, whom he hoped to surprise whilst refitting; but the English fleet had likewise put to sea with the same object. The fleets met off Lowestoft, and a battle was fought on the 2nd June, the tactical details of which are not recorded. The Dutch fleet was defeated; nine of their ships were captured, one blown up, and eight burnt. The fact that eight ships were burnt goes to show that the fire-ship, then but

a recent institution in naval warfare, had played an important part; in this war this vessel is more conspicuous than before. According to Gougeard,[1] the fire-ship first appears as an appendage of the fleet in 1636, although, as we have already seen, improvised fire-ships were used with deadly success in the destruction of the Spanish Armada. The fire-ship proper was under the command of a master, with a crew of five subordinate officers and twenty-five seamen. These vessels were easily recognised by the grappling-irons which were always fitted to their yards.

The English again had the command of the sea; but the sea-keeping qualities of their vessels were not such as to enable them to reap those advantages that would have followed a close blockade of the enemy's ports; hence these were left open, and the Dutch fleets were enabled to reassemble and combine. By May of the following year the Dutch were able again to take the sea with a fleet of ninety-six sail, mounting 4716 guns, manned by 20,642 men, and a few days later Monk and Prince Rupert also put to sea with a fleet of eighty-one ships, mounting 4460 guns and manned by 21,085 men; but the regrettable blunder of dividing the fleet was again made. Prince Rupert was sent to the Isle of Wight with twenty ships to prevent the threatened junction of the French fleet of thirteen vessels with the Dutch fleet. On the 11th June the Dutch fleet discovered Monk; and the latter, although hopelessly outnumbered, attacked, and thus began what is known as the Battle of the Four Days. This battle is notable for an exhibition of naval tactics before unknown. The Duke of York, afterwards James II., when commanding the navy in the previous war, had developed the fighting order of his fleets. He had been called upon to do this by the improvement in the mounting of the guns, and he was enabled to do so by the greater uniformity among the ships of war in sailing qualities. It was now that the close-hauled line of battle was adopted as the fighting order of the fleets. At first this order was imperfect—necessarily so owing to

[1] *Marine de Guerre.*

the imperfections in the sailing qualities of the vessels. Upon the introduction of this order of battle Admiral Mahan remarks:[1] "The question to whom the improvement is due is of little importance to sea-officers of the present day, when compared with the instructive fact that so long a time elapsed between the appearance of the large sailing-ship, with its broadside battery, and the systematic adoption of the order which was best adapted to develop the full power of the fleet for mutual support. To us, having the elements of the problem in our hands, together with the result finally reached, that result seems simple enough—almost self-evident. Why did it take so long for the capable men of that day to reach it? The reason—and herein lies the lesson for the officer of to-day—was doubtless the same that leaves the order of battle so uncertain now—namely, that the necessity of war did not force men to make up their minds until the Dutch at last met in the English their equals of the sea." A running fight was kept up in the direction of Dunkirk. When near the French coast the English fleet, which was then in perfect order, went about. The Dutch followed this manœuvre, and the fight continued on the return until 10 P.M. The next day the English had forty-four ships in action, and the Dutch eighty. The two fleets passed on opposite tacks, both relying upon their gunfire by broadsides rather than boarding; the English were to the windward. "But Tromp, in the rear, seeing that the Dutch order of battle was badly formed, the ships in two or three lines overlapping, and so masking each other's fire, went about, and gained the windward of the enemy's van, which he was able to do from the length of the line, and because the English, running parallel to the Dutch order, were off the wind."[2] Towards the close of the day Monk realised that, in spite of his superiority in discipline and sailing-power of his vessels, he was hopelessly outnumbered, and, owing to crippled spars and rigging, he was unable to push such advantage as he had

[1] *Influence of Sea-Power*, p. 115.
[2] *Ibid.*, p. 122.

already gained; he therefore retreated in good order to the westward. Here he fell in with Rupert's squadron on the following day (14th). The wind being fresh from the southward, the Dutch secured the weather-gauge. "The English, instead of attempting to pass opposite, came up from astern, relying upon the speed and handiness of their ships. So doing, the battle engaged all along the line on the port tack, the English to leeward. . . . The two fleets ran on thus exchanging broadsides for two hours, at the end of which time the bulk of the English fleet had passed through the Dutch line." Next morning, the fourth day of the fight, the Dutch were seen a long way off; and the English, though sadly crippled, made sail for them, and fighting recommenced at 9 A.M. The sea had risen, and it was found impossible to fight with the lower-deck guns. Throughout the day the unequal fight continued; but the loss of the *Royal Prince* on the Galloper Shoal the previous day had deprived the English of their largest and most effective fighting-ship, and as the other ships had been taken or destroyed, it was at last reluctantly admitted that the Dutch were too strong, and at length Monk drew off his shattered fleet, having lost twenty ships and destroyed ten of the enemy. In referring to this sea fight, De Witte, the chief Minister of Holland, said: "If the English were beaten, their defeat did them more honour than all their former victories. All the Dutch had discovered was that Englishmen might be killed and English ships burned, but that English courage was invincible." In spite of the strenuous fighting, superiority of naval tactics, build, sailing qualities, and handiness of his ships, and the better discipline of his officers and men, it was yet impossible for Monk to make up in the last two days' fight for the initial error of dividing his force and attacking with an attenuated fleet. During the first two days, had his great courage been tempered with discretion, the greater mobility of his fleet would have enabled Monk to have joined Prince Rupert and then attacked the Dutch fleet with a force more equal in numbers. That the English excelled in naval tactics at

this time, and that their order of battle and discipline in this particular battle was of a very high order, is vouched for by an authority who might well be suspected of bias in favour of the Dutch. This is the Frenchman De Guiche, who witnessed this battle, and of it he says: "Nothing equals the beautiful order of the English at sea. Never was a line drawn straighter than that formed by their ships. Thus they bring all their fire to bear upon those who draw near them. . . . They fight like a line of cavalry which is handled according to rule, and applies itself solely to force back those who oppose; whereas the Dutch advance like cavalry whose squadrons leave their ranks and come separately to the charge."[1] Though victorious in this battle, the Dutch were so crippled that they were unable to follow up the victory; and, owing to the wonderful recuperative power of England, in less than two months she was able to send a fleet of eighty vessels to sea, which met the Dutch fleet of eighty-eight vessels off the North Foreland on 25th July. Prince Rupert and Monk were again in command, and avenged their defeat of the previous month by destroying or taking twenty ships of war, killing four admirals, and killing and wounding 7000 seamen. Following this up, the English fleet attacked the coast of Holland, burning 160 merchantmen lying richly laden in the harbours. The sequel of this battle and attack illustrates the grave danger which attends the neglect of the power holding the command of the sea during war failing to secure it by the annihilation of the enemy's battle fleet; for, whilst the Dutch were suing for peace and Charles was prolonging the negotiations, the English, over-confident, laid up the fleet. It was not long before this folly was known in Holland; and before the Peace of Breda was signed in July 1667, De Ruyter had put to sea, sailed up the Thames, burnt four large men-of-war, and carried off the *Royal Charles*. England was justly punished for ignoring one of the principles of naval warfare.

Before leaving the Four Days' Fight, it is as well if

[1] *Memoirs.*

we emphasise the fact that this battle marked a distinct departure from the old order of things and gave a new character to naval warfare. Here we see for the first time the intelligent working of a chain of command. It is obvious from the manœuvres in the varying phases of the fight that both the Dutch and the English were working by a well-understood tactical book, and by a well-understood and comprehensive code of signals. It is particularly noticeable that the admirals commanding squadrons held the vessels forming such squadrons well under control, and that the admiral-in-chief had an equal control of the squadrons. This battle marked the passing from the inchoate to the choate.

The Peace of Breda was concluded and ratified whilst the Dutch were blockading the Thames; but this situation was understood by both sides to have been deliberately courted by the English, therefore the struggle for the command of the sea had again failed. Here were two seafaring peoples, equally matched, contending for that mastery of the sea which would ensure for the future the security of their sea-borne commerce. At the conclusion of two wars the question was undecided; and, as is only to be supposed, it could not rest here, and war again broke out between these two obstinate nations in March 1672. As in the previous war, Holland appreciated the true situation, and decided to contest directly the great point at issue, and therefore again prohibited for the time being sea-borne commerce. In this war France joined issue with England. The reasons for this, like the cause of the war, do not come within the scope of this work, and for its purpose need not be considered. The allies were sixty-five English ships-of war and thirty-six French, with twenty-two fire-ships and certain small vessels; the fleet was under the Duke of York. Against this the Dutch had ninety-one men-of-war, forty-four fire-ships, and twenty-three yachts and small vessels. Both fleets were divided into three squadrons—red, white, and blue—De Ruyter commanding-in-chief under the red flag. When war was inevitable, De

Ruyter had accurately grasped the situation; for, knowing that the French fleet at Brest was to join the English in the Thames, he made every effort to get his fleet to sea, so as to attack the latter before the junction was effected. But the inefficiency of the naval administration was an obstacle he was unable to overcome, and a project failed which had every prospect of success, and which would, had it succeeded, have altered the whole current of events as between the English and Dutch. On the 28th May 1672, the Dutch fleet surprised the allied fleets lying at anchor in Southwold Bay; the French took little part in the fight which followed. Although the English fleet suffered more than the enemy, the latter was driven off, the English following to the coast of Holland. The following year three naval battles were fought between the allies and the Dutch, but not one of these was decisive, though, like all the sea fights between Dutch and English, they were remarkable for their fury and for the length of the actions, lasting from morning till night. The last of these, fought on the 10th August off the Texel, was the final battle between these maritime powers for that command of the sea which had been contested so often between them, and was not even now to be decided. In this indecisive battle the English only lost a yacht and the Dutch a few fire-ships, though many ships on both sides were disabled and the loss of life was heavy. The Dutch kept the sea till the 12th September; and in February 1674 peace was declared, Holland recognising the absolute supremacy of the English flag from Cape Finisterre to Norway, and likewise paying a war indemnity. This last war served to familiarise both combatants with those alterations in naval warfare that had been introduced with such success in the second war. This war established on a sound basis those principles, the adherence to which was to give to England that command of the sea which created and is the guardian of her maritime empire.

The most important tactical lesson derived from the Dutch wars, and a lesson which stood in good stead during

the naval wars which followed, was the differentiation of naval force as would set apart as line-of-battle ships, vessels specially designed to fight in a line and to act together as the main strength of the naval position. The experience of these wars indicated the necessity of grouping or rating the various types or sizes of vessels; and in this respect it is not certain whether the English or the French were the first to take advantage of this lesson and to divide their navy into rates. In the year 1670 the French navy consisted of five rates, each consisting of several classes. The first-class first-rates mounted 120 guns and measured 1800 tons burden; in place of a sixth rate they had a class which were designated *frégates légères*, or little frigates.

Although throughout the Dutch wars and up to the opening of the eighteenth century the English men-of-war were of insufficient size, yet they excelled in speed, strength of build, and handiness. Their great fault lay in their overgunning, in consequence of which their lower batteries could seldom be used even in fresh weather. Most foreign shipwrights allowed a greater width to the port-holes and between them; their ships were more buoyant, and their lower batteries stood higher from the water.

The development of the line-of-battle ships naturally grew out of the conditions of naval warfare, which we have seen established by the Dutch wars; but as this type of vessel developed into a class of its own, just as the battleship of to-day is separated from the cruiser, it naturally followed that the fleet called for adjuncts in the shape of lighter vessels, to serve the purpose of scouts; this felt want was met by the frigate, a ship of greater speed than the line-of-battle ship, though of less gun power. As time went on, the separation between these two classes became more marked, until we find the highest development in the battleship and the first-class cruiser of to-day. It is interesting to note that the cruiser of to-day traces its ancestry back to the *Constant Warwick*, the first British frigate. This vessel was built at Ratcliff in 1646 by Mr. Peter Pett for the use of the Earl of Warwick as a privateer. She

was a vessel of 400 tons burden and mounted twenty-six guns; these were eighteen light demi-culverins, or short nine-pounders, mounted on the main deck, six light sakers, or short six-pounders, on what was the quarter, and two minions on the poop. This vessel proving her superiority in sailing, was made the model for other vessels, which became a separate class and gradually separated entirely from the line-of-battle ships.

The next naval war was abortive in tactical lessons. The ambition of Louis XIV., anticipating that of Napoleon, aimed at making France the dictator of Europe. Fully realising that sea-power was the only means towards such an end, he reorganised his navy, and with the assistance of the most able of ministers, Colbert, this navy daily grew in strength and efficiency, and acquired the habit of war by attacks upon the Barbary pirates and their ports. At the same time the navies of the two natural maritime powers, England and Holland, were decreasing in numbers and efficiency by the neglect of their respective Governments, and when war broke out with England and Holland as allies against France in 1689, the allied navies found themselves inferior in ships and men to the navy of an artificial naval power. During the first fifteen months of this war France was superior to the combined navies of England and Holland at sea, and her command of the sea was such as to enable her to land troops in Ireland. Now, although this war was barren of tactical lessons, it is responsible for the demonstration of a principle in naval strategy before unrecognised: that a superior fleet at sea does not hold the command of the sea until it has sought out and destroyed the fleet of the enemy; however inferior the enemy's fleet may be, it still remains a threat, and where an invasion of territory is contemplated an inferior fleet is still an effectual barrier to its successful accomplishment. On 30th July 1690, Lord Torrington, commanding the allied fleets of England and Holland, was defeated at Beachy Head. The victorious French fleet consisted of seventy ships, whereas Torrington's force numbered

fifty-six ships. The build and sailing qualities of the French vessels were much superior to those of the allies. Torrington had received imperative orders from London that he was to fight. Realising his inferiority, yet determined to obey his orders, he withdrew his fleet from the battle whilst yet able to retreat in good order. By this means, what he termed "the fleet-in-being," he was able to checkmate any attempt to invade England. Here we have an actual illustration that when and where invasion is contemplated, absolute and not partial command of the sea by the invader is essential. The French, having their hands full on the Continent, furthermore a territorial people whose fighting predilections favoured land warfare, failed to follow up their success off Beachy Head, and during the two years that followed, beyond extensive commerce ravaging, their naval operations remained inert, and their fleets fell away in efficiency, many of their ships being detailed for commerce destruction, others being laid up. England and Holland, on the other hand, exerted themselves in making their respective fleets efficient. On the 13th May 1692 the English and Dutch fleets concentrated at St. Helens, the former consisting of sixty-three ships of the line, mounting 4500 guns and manned by 27,725 men. In addition there were twenty-three frigates and fire-ships. The Dutch fleet consisted of thirty-six ships of the line, mounting 2494 guns and carrying 12,950 men; in addition there were fourteen frigates and fire-ships. The French fleet which put to sea for the purpose of clearing the way for a military descent upon England from Normandy, only consisted of forty-four ships of the line. Tourville, in command, had peremptory orders from the king to fight under any circumstances. The fleets met on the 19th May 1692, and the battle of La Hogue was fought and the French fleet defeated. Popular report has elevated this battle out of its sphere in history; there are no tactical lessons to be derived from it. The French fleet was outnumbered by more than two ships to one. It is indeed questionable whether Tourville would have come to an engagement, in spite of his royal instructions, when he

discovered how hopeless his position was, had he not found this out when too late to escape, for he sailed into the enemy's fleet during a fog. If any lesson is taught by La Hogue, it is that had Tourville taken things less for granted and made more use of his scouts he might have been saved a crushing defeat. This battle practically ended the naval operations of the war of the League of Augsburg.

The eighteenth century is one which will always be looked back upon with the greatest pride by Englishmen. It was a period of colonisation, and one in which Great Britain gradually but surely forged ahead as a sea-power, and by this powerful and certain instrument built up the great empire we survey with just pride to-day, and which is regarded with such envy by those rivals who, arriving late upon the scene, are unable to emulate the deeds by which our ancestors built up the heritage we are now enjoying, and in honour to whose memory we are bound to preserve inviolate by means of the equally as valuable heirloom inherited from them, that of sea-power.

The opening of the eighteenth century found the sea-sense of the inhabitants of Great Britain more fully developed and more acute than it had ever been in the past; the activities of her rivals had developed along other lines. Holland, imbued with the true sea-sense, was sacrificing this, her greatest asset, had she but known it, on the altar of mammon. The sea, as though resenting its sordid exploitation, no longer recognised Spain and Portugal as mistresses; the inhabitants of these countries, like those of Holland, in an insane thirst for riches, failed to recognise that the domain of the sea must be based upon the unassailable foundation of naval power.

In May 1702 the war of the Spanish Succession broke out, and again the two principal sea-powers were allied. This war is of interest more from the examples it gives of the subtle workings of sea-power than from any naval action of military interest. The fleets of England and Holland were confined to the coasts of the Peninsula and to the protection of commerce. The beginning of the

eighteenth century revealed the fact that gun-power was now given its proper place in the British navy; 1702 saw a slight increase in the number of the heaviest line-of-battle ships, and a decided increase in the 60-, 48-, and 32-gun ships; this, too, as the result of experience gained in the last war. Still, even at this time all ships down to and including those of forty-eight guns were considered as fit to form the line of battle, showing that even at this comparatively late date, battle-formation had not been systematised; it still wanted experience to bring home the grave danger to the whole line should a 48-gun ship find herself ranged against a 90-gun ship. Twenty-five years later we see that this danger is recognised, for, according to Schomberg,[1] all ships below fifty guns are excluded from the line of battle, and there is a decided endeavour to reduce the number of types, for this authority states that in 1727 the British navy consisted of :—

Ships.		Guns.	Ships		Guns.
7	of	100	40	of	50
13	,,	90	24	,,	40
16	,,	80	1	,,	30
23	,,	70	28	,,	20
24	,,	60	13 sloops of 4 to 10 guns.		

In the year 1756 the British 50-gun ship, being found too weak to fight any ship which the enemy usually placed into his line of battle, was reduced to an underline class, and in the same year the Navy Board contracted with a shipbuilder of Rotherhithe to build a fifth-rate ship at the rate of £9, 17s. per ton. This vessel was the first true frigate of the British navy, of 671 tons and mounting twenty-six 12-pounders on the main deck, four 6-pounders on the quarter-deck, and two 6-pounders on the forecastle. This vessel, named the *Southampton*, was just twelve months in building. The *Southampton* was the first English ship constructed to carry her guns on a single whole deck, a quarter-

[1] Captain Isaac Schomberg, *Naval Chronology from the Time of the Romans*, vol. iv. p. 10.

deck, and a forecastle, this being the characteristic of the proper frigate. Proving a success, she was made the model for future vessels of the frigate class. Five years later, in 1761, copper sheathing was introduced into the navy.

The year 1739 was the opening of a series of great wars, which lasted, with but short intervals of peace, for nearly half a century. This long struggle differed from previous wars, inasmuch as whilst the main scene of operations took place in Europe, many distant parts of the world were embraced in the theatre of operations. Colonies, separated from the parent state by thousands of miles of sea, were to change hands several times over, the richer of these to remain ultimately in the hands of that power emerging from the war with the command of the sea. In 1730—that is, nine years before war broke out between England and Spain—the British navy possessed 238 ships; in 1742 the navy had increased to 271, and in 1744 to 302; in 1748 it stood at 334 ships, and by 1760 at 412. The navy of 1760 measured 321,104 tons, and the experience of war had increased the line of battle to 127 ships, 285 ships being of fifty guns and under. In 1762, the number of ships had increased to 422; for the previous seven years £200,000 sterling had been voted annually for the building and repairing of ships. In the course of the war, which ended in 1762 (having lasted six years), twenty-six ships of the line and eighty-two smaller vessels were built in merchants' yards, and twenty-four ships of the line and twelve smaller vessels were built in the king's yards. With the peace that began in 1763, the navy was considerably reduced, but chiefly in small craft. Upon the outbreak of war with America in 1775, the British navy consisted of 340 ships; in 1777 it numbered 396, and in 1778, 450, of which 131 were of the line. At the general peace of 1783, the British navy had grown to 617 ships, with an estimated tonnage of 500,781; ships of the line numbered 174. But with this peace, all the artificers were retained in the dockyards and employed extra time, even in the winter months, instead of being discharged, as

had been the case at the close of former wars. It was in this year that workmen were first employed on piecework in dockyards; this was found to greatly facilitate work. By the 1st January 1790, as a result of the extraordinary exertions which had been made, the condition of the ships of the British navy had approached nearer a state of perfection than at any former period: the numbers were 146 of the line, 332 of fifty-two guns and under—a total of 478. Upon the outbreak of war with France in 1793, the naval stores in hand at the respective dockyards were valued at £1,812,982. When early in 1792 it was recognised that war was inevitable, the government of the day adopted the most vigorous measures, and so rapidly did the equipment of ships proceed that within nine months sixty sail of the line and seventy-four of fifty guns and under, exclusive of sloops and small vessels, were added to the existing navy. During the first year of the war the navy was increased as to frigates and smaller vessels, and on the 1st September of that year the navy stood at 498 vessels, with a tonnage of 433,226. On the 1st January 1795 the number of ships stood at 599; on the 1st January 1797 at 691; on the 1st January 1799 at 803, and at the signing of the preliminaries of peace on the 1st October 1801 the number had increased to 864. Of these, 703 were in commission, consisting of 144 of the line and 242 fifty- and forty-four-gun ships and frigates, and 317 sloops. At the close of the war the British navy consisted of 247 more ships than at the close of the preceding war of 1783.

At the recommencement of hostilities in May 1803, Great Britain had 770 ships; on the 1st January 1805, 949, of which 698 were in commission.

For thirty years prior to 1782 the English navy had failed to secure any conspicuous naval victory. Where, however, ship engaged ship, the British always succeeded, but the advantage had not extended to general engagements. During that period the French were superior in naval tactics. The fact that British seamen were superior in bringing a ship into action and in their conduct during

action went far to neutralise such advantages as were gained by the enemy in manœuvre, and the French failed during this period to effect anything decisive, nor did they ever presume upon their superior skill and dare to make an attack; but, confident of their superiority in naval tactics, and relying on British want of penetration, they constantly offered battle to leeward, relying upon the impetuosity of the British national courage to hurry on to make the customary attack, though at a disadvantage almost beyond the power of calculation. Until this artifice was discovered, and until the British system of receiving and of making an attack was changed from the necessity of counteracting the plan of the enemy, the British navy could scarcely maintain its claim to decided superiority, or be said to have reverted to those traditions gained in the Dutch wars.

It is hardly necessary to point out that of the period now under review ships had to be, as to each other, windward or leeward, and in their tacks either starboard or larboard. A fleet to windward had invariably borne down in an oblique line on another to leeward, each ship abreast of the other, until they brought up within a convenient distance for a close and general engagement from van to rear. A fleet to leeward, therefore, desirous to avoid a general engagement, had full leisure to disable a windward fleet during its approach to battle; and when the latter had assumed a situation for close encounter, the former could bear away in succession whilst enveloped with the smoke from the use of the black powder of those days, or, by making more sail, might move ahead and deliver its whole fire into the enemy's van as it passed, and then wear in succession to form a new line to leeward, on the opposite tack. The superiority of the French tactics lay in the fact that they never made an attack, but always courted a leeward situation, and thus invariably disabled the British fleet in coming down to action; and, upon seeing it disabled, made sail and demolished the van in passing, keeping clear of close engagement and never lying ship-abreast.

On the other hand, the British, from an irresistible desire to attack, constantly courted the windward position, and generally had their ships disabled and separated, and were seldom able to close with the enemy or to make a capture. It was by the display of such different tactics that the French succeeded, from the naval engagement with Byng in the Mediterranean in 1756 to the fight with Graves off the Chesapeake. In the engagement off Grenada, Admiral Byron's fleet bore down to windward, whilst the enemy, bearing away, prevented an attack upon their rear or a close engagement in the van. The ships in the British van were disabled in making the attack, as they received the whole fire of the enemy's line as each ship of the latter passed and wore in succession, in order to form to leeward upon the opposite tack. So closely did the French adhere to this system that, to avoid all chance of close or general engagement, they forbore even to intercept the disabled ships of the British which had necessarily fallen to leeward.

The naval battle of the Saints, fought between Rodney and De Grasse off San Domingo on the 12th April 1782, opened a new era. Rodney set the example of attack to leeward, and, cutting the line, he unconsciously repeated the Roman admiral's tactics at Ecnomus nearly two thousand years earlier. With the exception of the battle of the Nile, when the French fleet was at anchor, the same manœuvre of attacking to leeward and cutting the line has invariably succeeded. In Lord Howe's victory the signal was given (the first, we believe, that ever was given, for Rodney's is thought to have been rather accident than design) for the British fleet to leeward to tack successively and cut the line. The two fleets were instantly intermixed, the battle was that of ship to ship; and the event proved the skill of the attack. So sensible were the French of the cause of the British victory that the Convention passed a decree of death against the captain who should ever allow the line to be broken.

Lord St. Vincent, from having greater advantages in varying the plan of attack, disregarded the general system.

When he perceived the Spanish fleet to windward, consisting of twenty-seven sail of the line, he immediately cut off a division of it, though he could not bring on a general engagement, as the enemy preferred rather to retreat than assist any part of their fleet. Lord Duncan, in the victory off Camperdown, cut the Dutch line immediately in the centre.

The battles of Howe, of St. Vincent, of Duncan, and of Nelson may all be considered as having been fought upon the system of Rodney, though a great improvement was shown at Trafalgar, where Nelson formed his fleet into two columns in line ahead, separated from each other by about a mile, the northern or weather line consisting of twelve ships, the southern or lee line of fifteen ships. In this formation Nelson bore down at right angles to the enemy's line, almost dead before the wind. The idea to which all else was subordinated, and which has since been reduced to an axiom for all time, was to overwhelm a part of the enemy's force with the whole of his own.

During the Napoleonic war the development of the warship was stimulated by the spur of experience. The heavy and the light line-of-battle ships continually diminished in number, whereas the upper middle rank of that class of ship, the seventy-four, continually increased, until at Trafalgar we find it the predominating type. And here it is interesting to note that, as the result of experience, the British, French, and Spaniards rejected everything under 64-gun ships for battle. At Trafalgar the twenty-seven British ships were made up of three 100-, four 98-, one 80-, sixteen 74-, and three 64-gun ships; and the combined enemy's fleet was made up of one 130-, two 112-, one 100-, six 80-, twenty-two 74-, and one 64-gun ships. When the naval war practically came to an end in 1813, the 74-guns occupied the whole field; the 64-guns had practically been done away with, and so too had the heavy line-of-battle ships of eighty guns and upwards. Had the war continued, it is but reasonable to suppose that a single type would have made up the line of battle, that type being of the upper middle class.

It is as well to remark here that it was during the intervals of peace in the seventeenth and eighteenth centuries that the heavy types developed, whereas it was the actual experience of war that brought forward the medium type. It was found then, as it will probably be discovered in the near future, that it is possible to over-develop gun-power; that there is a line, to cross which tends towards inefficiency; that the development of gun-power over a certain standard (and we need war to fix the modern standard) can only be done at the sacrifice of other essentials, just as necessary in naval efficiency as gun-power.

As the weaker line-of-battle ship became obsolete and disappeared, so we find that the very heavy frigate of forty to forty-four guns was laid aside, thus defining more clearly the impassable gap between the battleship and the cruiser. When the British sailing navy had reached the maximum force in 1809, there were forty-four 38-gun and thirty-six 36-gun frigates in commission; and they reached their highest development the next year, there then being forty-eight 38-gun and forty-nine 36-gun frigates.

The battle of Navarino, fought between the combined British, French, and Russian fleets and the Turco-Egyptian fleets in the Bay of Navarino on 20th October 1827, was the last naval battle of importance fought between sailing vessels. This battle is devoid of any tactical lesson; it is of interest only as illustrating the great superiority of the Western races over the Eastern that had been gained since the battle of Lepanto. The contending forces were :—

Allied Fleets.	
Sail of the line, including one 84	11
Large frigates	8
Small frigates	1
Brigs	4
	24

Turco-Egyptian Fleet.	
Ships of the line, one 84	3
Large frigates	15
Corvettes	18
	36

The rest of the force is made up of gunboats, schooners, and craft of all descriptions.[1]

[1] James, *Naval History*, vol. i. p. 366.

This battle has one characteristic which separates it from the naval action at sea: it was fought at anchor, and appears to have been a victory for the gunners, for the Turco-Egyptian fleet was practically destroyed within four hours of first opening fire. This battle closed the old order of things, and naval warfare was to enter upon a new phase in at least one, and the most important, of its characteristics: it was to revert back to the ancient days when the war-vessel was independent of the wind for coming into action and for manœuvre. The introduction of steam has produced a change in maritime warfare, only equalled to that occasioned by the invention of gunpowder; but even so, history and past experience must still remain as valuable guides to the naval officer of to-day and of the future. Such obstacles as storms, calms, baffling or contrary winds, currents, lee-shore tides, and breakers, all of which confronted the sailing-ship, are comparatively negatived by the absolute power of steam propulsion—a power which can be exercised and regulated with almost mathematical certainty.

In the year 1819, the *Savannah*, a vessel of only 350 tons burden, steamed across the Atlantic in twenty-six days from New York to Liverpool. She then proceeded to St. Petersburg, and then recrossed the Atlantic, using steam during the three passages.

In 1825 the first voyage under steam was made to India. In 1838 two small gunboats propelled by steam were built in England; these were named the *Nemesis* and the *Phlegethon*, and in 1840 rendered good service in the Chinese War.

It was now that private enterprise took the lead in shipbuilding. Iron construction was adopted in the mercantile marine some years before the building of the *Birkenhead* for the navy in 1845. Screw propulsion was adopted, and made rapid progress, in the mercantile marine long before it was introduced into the navy.

The last and most important revolution in naval construction was dramatic in its suddenness, and was due to strife between the erstwhile colonists of Great Britain.

Upon the outbreak of the American Civil War in 1861, it was realised by both sides that success was contingent upon the command of the sea. The Northern Government retained the navy of the United States; but these warships, built of wood, were of the old pattern. The strength of this navy was seventy-six vessels, with an aggregate tonnage of 105,000, and mounting 1783 guns. It was impossible for the South to compete with this fleet. Mr. Mallory, the Secretary of the Confederate States' navy, recognised this, and, writing on this question, he said: "Inequality of numbers may be compensated by invulnerability; not only does economy but naval success dictate the wisdom and expediency of fighting with iron against wood, without regard to first cost." He proceeds to point out that a new and formidable type must be created. At this time England and France were experimenting in the construction of ironclads, as a result of their experience with armoured floating batteries during the Crimean War. The Confederates therefore converted a 40-gun steam frigate of 3500 tons burden, named the *Merrimac*. This vessel was cut down to the water-line, and there was built amidships a casemate 170 feet long, the sides of which were formed of 20 inches of pine, with 4 inches of oak upon it, inclined at an angle of thirty-five degrees; outside of this timber two layers of iron plating, each 2 inches thick, were fixed. This vessel had no masts, and the single funnel was not protected; she was fitted with a cast-iron ram, projecting 4 feet. The casemate, which was rounded at each end, was pierced with fourteen ports, the sills of which were 5 feet above the water-line. In the battery were ten guns —forward and aft two 7-inch rifled weapons mounted on pivots; on each broadside one 6-inch rifled gun, strengthened by steel bands shrunk upon the breech, and three 9-in. smooth-bore Dahlgren guns.

"The workmanship of the vessel was rough, but she was none the less a formidable craft, and was, in the absence of masts and rigging, and in her low freeboard fore and aft, a most daring departure from the accepted designs of ship-

builders. Above water she was invulnerable to all but the heaviest ordnance." [1] In the meantime, a Captain Ericsson persuaded the Northern States of the need for armour-plated ships, and permission was granted for the building of one small vessel, according to Ericsson's plans, as an experiment; this was the famous *Monitor*. This vessel was of 1000 tons displacement, extreme length 172 feet, breadth 41½ feet, and draught 10½ feet. Amidships was placed a revolving turret; the sides of the vessel were plated with five 1-inch layers of iron, the deck protected by two ½-inch iron plates. The turret was 25 feet in diameter inside, and 9 feet high, revolving on a central pivot, which was supported on the ship's bottom. It was protected by eight layers of 1-inch plate, and the roof was of rolled iron. The guns in the turret were two 11-in. Dahlgren smooth-bores, firing projectiles of 135 to 166 lbs. with 15 lbs. of powder. The Federal Government were fully alive to the fact that the *Merrimac* was under construction, and, apprehensive of the damage she would do to their wooden navy, hurried on the launching of her armoured rival. Both sides now understood that the command of the sea depended upon the superiority of the small armoured ship each was constructing. The Federal fleet, mounting nearly as many guns as Nelson had at Trafalgar, and of a more efficient type, was no longer relied upon by the one side or feared by the other.

Here we see the sudden passing of the wooden sailing-ship navy. The introduction of iron, steam, and mechanism was rapid. The type of instrument used in securing and holding the command of the sea for centuries, in the discovery of new lands, in the colonising of the four quarters of the globe, in the creation of the very nation that was now at war, had but a few years before reached its highest state of perfection; and suddenly, hardly without warning, it was made impotent. The *Merrimac* was the first launched. As this strange, unwieldy-looking craft steamed into Hampton Roads, where lay a formidable Federal

[1] H. W. Wilson, *Ironclads in Action*, vol. i. pp. 5, 10.

squadron of warships and steam frigates, her armoured sides received the shots from the forts and the warships with no damage. "More than an hour passed before this fire was returned. At last the bow port shutter on the ironclad was raised, and the *Cumberland's* men saw the 7-inch rifled gun protrude. Then came a flash, and the violent explosion of a shell killed or wounded most of the crew of the *Cumberland's* after pivot-gun. The *Merrimac* then passed the *Congress* at a distance of 200 yards, giving and receiving a broadside. On the *Congress* the slaughter was horrible. . . . Leaving the *Congress* on her starboard quarter, the *Merrimac* now headed straight for the *Cumberland*. Buchanan was resolved to use the ram for the first time in modern history, and before him the great sailing-ship lay helpless. On he came, whilst the sloop poured in her poor, ineffective fire, her men being determined to fight to the death. At last his iron ram struck the *Cumberland* in the starboard fore-channels, and the shock sent the ship heeling over, though it was scarcely felt on board the *Merrimac*. . . . In the day's fighting the Northerners had lost 250 killed or drowned, and probably an even larger number of wounded; two ships had been destroyed. On the other side, the *Merrimac* had started a slight leak; every projection outside her armour had been shot away, but her armour had kept out every projectile, and only two men were killed and eight wounded." [1]

The remarkable success achieved by this insignificant-looking ironclad raised the hopes of the South, whilst it drove the North into a temporary panic. Both sides recognised that the success of the war depended on acquiring the command of the sea. At last the *Monitor* was launched and despatched to meet the *Merrimac*. The battle which followed was of a ding-dong nature, the armour plate of both vessels being proof against the low velocity guns. Neither ship inflicted any serious harm on the other, nor was a single man lost. This bloodless encounter had a far-reaching effect: it upset many preconceived theories, and

[1] H. W. Wilson, *Ironclads in Action*, pp. 16 *et seq.*

was directly responsible for a revolution in warship building. As a result of this sea fight, Great Britain built the *Royal Sovereign* in 1864, the direct ancestor of our Dreadnoughts. This fight was also responsible for the struggle that has been going on ever since between armour-plate and projectile, and for the ever-increasing burden placed upon the taxpayers of sea-power by the growing cost of expensive armaments.

Following the *Royal Sovereign*, the *Devastation* was built in 1869. Here England set the pace, and indicated the direction modern navies were to take; "space capacity" was sought for. In 1889 the second *Royal Sovereign*, with a space capacity of 5000 nautical miles, was built. Four years later this capacity was increased to 6500 miles in the *Majestic*, and to-day we have reached the 9000 nautical miles space capacity.

The radical changes that have taken place during the last half-century in ships of war and their armament have not resulted in those drastic changes in naval tactics that were at first predicted. In each of the three naval battles of importance, under what may be termed modern conditions, the victory, as has always been the case, has gone to the side having the more efficient personnel.

In 1866, in the war between Italy and Austria, the Italians possessed a navy costing over twelve millions of money. Their ironclads were considered the most efficient of the day. Their two finest ships, the *Re d'Italia* and the *Re di Portogallo*, had been but lately launched; these were of 5700 tons (old measurement), and were protected with 7 inches of armour. The Italian fleet, under Admiral Persano, numbering in all thirty-four ships, of which twelve were armoured, mounted 638 guns; of these, 266 were rifled; the crews totalled 10,572. The Austrian fleet, under Admiral Tegetthof, consisted of twenty-six vessels, of which seven were armoured, inferior in every way to those of the Italians. The rest of the fleet was made up of wooden vessels; the guns mounted numbered 532, of which only 121 were rifled; the crews totalled 7838. On the 20th July 1866, these fleets met off the island of Lissa. In

spite of the superiority of the Italian force, they were defeated in a battle which lasted for two and a half hours; no tactical skill was shown on the Italian side. Admiral Persano had lost the confidence of his command before the battle by his weakness and irresolution; on the other hand, the Austrian commander had gained the whole-hearted confidence of his officers and men. This battle illustrated the fact that tactics conceived in peace do not always hold good under war conditions. Prior to the action fought off the island of Lissa, great stress had been laid upon the deadly effect of the ram; and Tegetthof himself, an experienced naval officer, believed that a proper use of this weapon would give him an immediate victory, and his final order was: "Panzerschiffe den Feind anrennen und zum sinken bringen." Although numerous attempts were made by both sides to ram, only once was it successful: the *Ferdinand Max* managed to sink the *Re d'Italia* with little damage to herself. The incapacity of the Italian admiral had undermined the *morale* of the fleet; and, though superior in ships, armament, and numbers, it was defeated before going into action.

When war broke out in 1898 between Spain and the United States, according to Admiral Cervera, there was hardly a really effective ship amongst the eleven armoured and thirty-eight unarmoured ships of the Spanish navy. He tells us that guns, ammunition, and torpedoes were wanting. We find here exactly the weak points that appeared a few years later, when the Russian fleet was called upon to act at a distance from its base. Vessels credited with a speed of 21 knots could barely steam 13 knots; where and when coal was wanted and confidently expected to be it was not to be found. The great superiority of the American fleet, and the failure and collapse of the Spanish navy hinder the possibility of deriving any tactical lessons. One incident, however, is of the greatest value as confirming a principle of sea-power, and that is, the effect a "fleet-in-being," however inferior, has upon the superior force. For a period of thirteen days after leaving St. Vin-

cent, Admiral Cervera's squadron was lost sight of; the uncertainty of where and when it would appear had a demoralising effect upon the American public. The seaboard towns clamoured for naval protection, the granting of which, had the enemy been more formidable, might have been disastrous. As it was, the American fleet was dangerously scattered, and although it was known that Cervera could not be within 3000 miles of the American coast, all army movements were suspended until his whereabouts were known. We have the American War Minister's despatch to Commodore Schley, dated 26th May, as proof that this small "fleet-in-being" was controlling not only the naval but also the military movements in America, for he says: "It is your duty to ascertain immediately if the Spanish fleet is in Santiago, and report; it would be discreditable to the navy if that fact were not ascertained immediately; all military and naval movements depend upon that point."

The one lesson that has been derived from this war is that steam propulsion has greatly increased the value of the "fleet-in-being." As is shown elsewhere, the economic value of coast defence, as an adjunct to naval power, was fully demonstrated by the impotency of naval attack against land defences.

If we pass to the most recent naval war—that between Russia and Japan—we find more that appeals to the imagination than to the practical mind. It was more a sense of pride than any hope of victory that decided the Russian fleet to undertake its long voyage from the Baltic to meet its anticipated destruction in the Sea of Japan, and the manner in which it undertook this voyage speaks well for the courage of the Russians.

A comparison of the total strength which both belligerents could dispose in the theatre of war, shows that as regards displacement the Japanese were only slightly superior, viz., 6749 tons, representing a small cruiser. The Japanese had in 8-in. guns 4·6 times as many as the Russians; in 6-in. guns 1·5 times as many; in 4·7-in. guns 3 times as many, and in 3-in. guns 1·4 times as many.

They also had a big advantage in speed, and therefore the choice of range in battle; their ships were of more recent construction and better armoured; then the Russian fleet was divided, the Vladivostok squadron being separated from Rozhdestvensky by a considerable distance. The Japanese admiral, Togo, was therefore in the position of selecting his own battle-ground and taking the enemy's squadrons in detail. Having decided to give battle in proximity to his own ports, the Tsushima Straits offered the greatest advantages, as being most convenient for the operations of the Japanese torpedo craft and submarines. This type of vessel is an efficient means of coast defence, and the defence of a narrow strait reduces itself to the defence of the shores; hence we find that these vessels played a more important part in the battle of Tsushima than would have been possible in the open sea. A battle in which one side considers itself beaten before the fight has commenced is at most but a half-hearted affair, and is not likely to produce many valuable lessons for the future. From the firing of the first shot at Tsushima, the Russians became an easy prey for their antagonists. The tactical skill, seamanship, discipline, and gunnery of the Japanese was so infinitely superior to that of the Russians, that the latter were hopelessly outclassed from the beginning, and the former were hardly called upon to exert to anything like its full extent any one of these qualities beyond that of gunnery. Had the battle of Tsushima been a determined struggle for the command of the sea, it would have been productive of many useful lessons.

CHAPTER VII

NAVAL ALLIANCES

NATIONS that have lived in history, shown any permanency, or whose influence has been lasting, have been predominant for a period as sea-powers; the more homogeneous their navy, the more complete has been their command of the sea and the more prominent their position. Such land powers as have stood out conspicuously were only able to achieve their more permanent successes by an alliance with a naval power.

It is generally accepted that the pages of history are richly illuminated with the brilliant careers of nations whose military strength has been confined to the land; yet it has to be admitted that these careers have been meteoric and the influence upon mankind but short-lived. Egypt, Greece, Carthage, and Rome have stood out at different periods of their lives as nations as great military people; but such lasting impressions as they made were so made during their supremacy as sea-powers. Persia reigned supreme only so long as her naval allies held the command of the sea. The power of Asiatic Greece was dependent upon the navies of Ionia.

It is recorded of Crœsus the Lydian that having brought all the Greeks of Asia under his sway by military conquest, he commenced to build a navy for the purpose of subduing the Ionians, and that one of his councillors (Bias of Priene), recognising the impossibility of a continental people contending successfully with a maritime people on the sea, informed Crœsus that the islanders were equipping a large body of cavalry for the purpose of attacking Sardis. The king, believing this, said: "May the gods put such a thought into the islanders as to attack the sons of the Lydians

with horse." The answer was: "Sire, you appear to wish above all things to see the islanders on horseback upon the continent, and not without reason; but what can you imagine the islanders more earnestly desire, after having heard of your resolution to build a fleet in order to attack them, than to catch the Lydians at sea, that they may revenge on you the cause of those Greeks who dwell on the continent whom you hold in subjection?" [1]

Crœsus, recognising the wisdom of the advice, stopped his shipbuilding and straightway entered into an alliance with the Ionians.

The alliances which took place from time to time among the maritime states of ancient Greece seldom stood the strain of a protracted war; this is accounted for by their rapid development of nationalism, commercial jealousies, and the admixture of numerous races. We find that in all the naval wars in which the ancient Greeks were concerned, Greek galleys were actually fighting on the side of the enemy. Even in the life and death struggle at Salamis those galleys of the Persian fleet that most distinguished themselves were commanded and manned by Greeks. This calls for explanation, for there is always the danger of drawing wrong conclusions from historical precedents. The Greek colonists were, owing to slow and limited means of communication, compelled to intermarry with the people of the country of their adoption. Their colonial policy, like that of France, Spain, and Portugal of to-day, was one of fusion; in a generation or two the colonials had lost most, if not all, of the characteristics of their ancestors. Those emigrants who set out from the Prytaneum of Athens, considering themselves the most aristocratic of Grecians, settled among the Ionian Islands, took no wives with them but seized a number of Carian women; the children, though Greek in name, had little in common with the mother country; in a few generations there were four varieties of dialect among the Ionians. There was not even the bond of language between many of these Greek colonies and the

[1] Herodotus, *Clio*, i. p. 27.

mother states, and one can easily conceive ethnogenical differences between the maritime peoples of ancient Greece greater than exist between the Teutonic races of to-day. We must therefore guard against condemning the action of a people whom history informs us fought against their own countrymen before investigating the extent of the relationship between the combatants.

Salamis is strong evidence that the strength of an alliance does not depend so much upon the number of the allied forces as upon their homogeneity and common characteristics. The naval armament of the Persians was made up of a heterogeneous people, Oriental and Occidental, and a mixture of both races following entirely different customs, speaking a variety of tongues, the only bond being the despotic sway of their sovereign. Opposed to this armament was a naval alliance far weaker in numbers; and though the allies were political entities independent of each other, they came together from the necessity of fighting a common danger to the independence of each; they spoke the same language and their customs were alike; above all, the character of the parties to the alliance was racially similar. As we proceed, the great importance of this condition will be remarked in the greater success attendant upon the English and Dutch than upon the English and French or the French and Dutch alliances.

The weakness of all alliances lies in racial jealousy; where racial differences are but slightly marked, as among the Teutonic peoples or among the Latins, this is sometimes replaced by emulation, which makes for strength rather than weakness.

The earliest naval alliance in which England was concerned was that entered into between the usurper Carausius and the Franks in A.D. 288. Carausius, having deserted from the service of the Roman Emperor, Maximian, carried over to Britain with him a large section of the Roman fleet, and there declared himself Emperor of Britain. He appears to have recognised that the security of his newly acquired realm depended solely upon sea-power, for

his first care was to make his navy efficient; he retained Boulogne as his naval base on the Continent, and so as to thoroughly guard the Channel he formed a naval alliance with his continental neighbours, the Franks. "His fleets rode triumphant in the Channel, commanded the mouths of the Seine and of the Rhine, ravaged the coasts of the ocean, and diffused beyond the columns of Hercules the terror of his name. Under his command, Britain, destined in a future age to obtain the empire of the sea, already assumed its natural and respectable station of a maritime power." [1]

The naval strength of the Franks lay in the Mediterranean, and the Romans, fearing a junction between the allies, equipped a fleet of a thousand sail, and so judiciously patrolled the coasts of Britain, Spain, and Gaul, that they prevented the allied fleets joining. Having successfully masked the fleets of Carausius, the Roman fleet sailed for the Mediterranean, where, before their departure was known to Carausius, they met and totally defeated the navy of the Franks.

By preventing the junction of the allied fleets, a comparatively weaker naval force was able to take the fleet of each of the allies in detail, and thus secure the command of the sea; then, and not until then, were the Romans enabled to regain Britain.

Naval alliances, like those of their military congeners, are only brought about under stress; once this is relieved the allies either break away or become enemies. An alliance cannot be really effective unless the danger the allies are in league against is common to both.

During the twenty-five centuries which have gone to build up sea-power there is not one single instance of a naval alliance having accomplished what the stronger ally would not have effected unaided; indeed, we find several instances where allied fleets have been engaged and the weaker ally has been somewhat of a hindrance. The victorious Greeks of Salamis can hardly be considered to have been

[1] *Decline and Fall of the Roman Empire*, p. 238.

allies as we understand the term to-day, for, as fellow-countrymen, they fought a foreign foe. In the same way, the naval alliances, short-lived though they were, between the Italian maritime states of the Middle Ages, were but offensive or defensive leagues of fellow-countrymen against a common enemy.

The first naval alliance to which England was a party was that entered into by Richard with Philip Augustus, King of France, in 1189; it was a sworn undertaking by which either was to defend and maintain the honour of the other. The King of France was to assist the King of England in the defence of his dominions, and the King of England was to defend the King of France in the defence of his land and dominions.

England's next naval alliance was with Flanders in 1297, and was entered into for "establishing perpetual peace and concord between the masters and mariners of England, Bayonne, and Flanders, and, for the greater security of themselves, the merchants and others of those countries." Little or no benefit was derived by either party from this alliance for two years. Later we find that Edward, failing to hold the command of the sea, found it advisable to enter into a two years' truce with France.

Shortly after the Treaty of Breda an alliance was formed between England, Holland, and Sweden, with the object of checking the growing power of Louis XIV.; but within two years England broke away, Charles being bribed by France to enter into an offensive league against his recent ally (1670). In the war which followed, the action of the French was highly suspicious; Louis was desirous to see the two naval powers exhaust their strength against each other, and whilst this was actually occurring he was not only economising his own fleet, but was strengthening it, and there is good reason to believe that when England and Holland had wearied themselves Louis would have respected his alliance with Charles as indifferently as the latter had his alliance with Holland.

The battle of Solebay, fought during this alliance, goes

to show the inherent weakness of a fleet formed of ships of two or more nationalities ; in this case it was accentuated by the great distrust of the English for the French, by the fact too that the former despised the latter as sailors. The tactics adopted by the Dutch admiral, De Ruyter, in this battle indicate that he more than suspected that the French would give little or no support to their allies, and he, like the English, appears to have held their seamanship at little value, for he contented himself with holding them in check with a comparatively small force under Rear-Admiral Banckers. During the battle the French made no move to assist their allies, though it is stated that the French admiral, D'Estrées, contemplated tacking and breaking through Bancker's squadron so as to rejoin the English, but that before he was able to do so the Dutch were able to withdraw to the north. Admiral Mahan, in commenting upon this contemplated manœuvre, points out that the result would probably have been most disastrous to him, and would in all likelihood have overwhelmed him with a fate similar to that of the Spanish admiral off St. Vincent in 1797.

It is noticeable that during the wars between the English and the Dutch there was never that deep-rooted race-hatred displayed which was always evident in the wars between England and France and Spain, or between the Dutch and those two Latin peoples. The wars between England and Holland arose from trade rivalry ; the sympathy of the people in England had always been with the Dutch rather than with the French, who had proved themselves treacherous allies. It is therefore not surprising that England's next alliance was with her old but brave enemy, and in December 1674 a treaty of commerce was concluded between the two chief maritime countries of the world. Yet here, again, the result shows the inherent weakness of naval alliances even between people so closely allied in character as the English and the Dutch. The indecisive battle of Beachy Head, 1690, from which the allied English and Dutch fleets withdrew before the more powerful and homogeneous fleet of

the French, resulted in bitter recrimination against each other by both the allies. Indirectly, however, the sea-power of England was developed by this alliance, which lasted until the Peace of Utrecht was signed, 11th April 1713, for from 1707 Holland failed to furnish more than one-third their quota of ships towards the maintenance of the allied superiority in the Mediterranean and for opposing any force which France might prepare either at Dunkirk or in the ports of West France. Hence as the Dutch quota dwindled the English quota was increased, and although an extra burden was imposed upon England, yet the net result was a distinct benefit, for it forced the British navy to greater development and effort, which otherwise would not have been the case.

The most illustrious period, short as it was, of French naval history was when, in the latter half of the seventeenth century, her navy was opposed singly to the English and Dutch; her navy made a better stand than when coupled with an ally or with allies, and conversely the allied fleets were inherently weaker than was the case when either had fought singly. In the same way we find that the material for the most illustrious pages of English and of Dutch naval history was forthcoming when these nations stood alone against numerically stronger combinations. It was due to Holland failing to recognise in 1780 that England, untrammelled with allies, was more powerful on the sea than the rest of Europe combined, that she finally swept the Dutch flag from the sea; for it was in that year that the celebrated Armed Neutrality League was formed solely for the purpose of destroying the maritime supremacy of England, and this consisted of most of the European powers. Holland, unfortunately for herself, had, after centuries of experience, failed to recognise the great superiority of a homogeneous navy over one made up of combinations of jealous nationalities, and she therefore, believing England would be defeated, joined this League. By this time the Dutch fleet had dwindled out of existence, and was only to be found on paper. England immediately

attacked and utterly defeated the Dutch; most of their colonies were taken. This, the fourth Anglo-Dutch war, lasted for three years, during which the merchant marine of the Netherlands practically disappeared.

Wherever and whenever we come across alliances between maritime powers, however excellent the moral effect may be during peace, they always fail to stand the strain of war; almost invariably we find that owing to the jealousy of one or other of the commanders this or that ally failed to give the support expected. The more partners to a naval alliance the more abortive appears to be the actual result in war, a notable instance of this being the allied fleets of England, Holland, Russia, and Denmark against the Swedish navy in 1716. The allied fleet consisted of sixty-two battleships mounting 3616 guns. Neither Gyldenlove nor Norris would receive orders from the other, therefore Peter the Great, devoid of all knowledge of seamanship, though with a better understanding of sea-power than most men in Europe at the time, was recognised as commander-in-chief. Through the jealousy of the commanders, the distrust of the Danes for the Russians, and the working of all the other disturbing elements always found in alliances, this combination, though powerful in ships, men, and guns, failed to achieve anything.

An ingenious device was attempted by the Swedes and Danes to overcome the jealousy of command in their naval alliance in 1756, when they agreed to maintain an "armed neutrality" and sent a combined fleet into the North Sea to protect their trade from English warships and privateers. The arrangement as to command was that the two senior officers should act in turn as commander-in-chief for a period of two months at a time, deciding which should hold it first by drawing lots. The Swedish commander was the first to command the combined fleets; but a few days after being at sea, owing to bad weather the squadrons parted, and the expedition was abandoned for that year. Next year (1757) the same squadrons, under the same commanders, were again sent to the North Sea, and it was now that diffi-

culties arose. The previous year the command had been held by the Swedish commander for a fortnight; the Danes now claimed the command for their man. The Swedes held that their man should be in command for the balance of his two months, or that a fresh draw should take place. As no agreement was come to, the Swedish squadron returned to port.

In 1760 we have an alliance between Russia and Sweden recognised by Denmark, the agreement being that Russian and Swedish ships should operate together in the Baltic, while the Danes prevented any foreign fleet from coming to the assistance of Prussia. At the bombardment of Kolberg, in September of this year, by the allied fleets of Russia and Sweden, the latter took no part, and the attack was abandoned. The next year the attack on Kolberg was renewed, and again the Swedish fleet held back from the bombardment, although they covered the landing of the Russian force. This second attempt on Kolberg was also abortive.

Although history is replete with examples of the inefficiency of naval alliances for active participation in war, there is one form of naval alliance which always plays an important part in the result of war. An excellent illustration is that of the "armed neutrality" already referred to. Catherine II. of Russia was responsible for this new development in sea-power; no doubt French diplomacy was mainly responsible for this. England had always upheld her command of the seas by insisting upon visiting neutral ships, and in confiscating all warlike munitions. It was her definition of warlike stores which first raised objections; her list of prohibited cargo contained timber and iron, which, it was argued, were used for the building of ships. In 1780 the empress issued her proclamation, which contended that the flag protects the cargo; also that neutral ships, if escorted by a neutral warship, are free from inspection; and that a blockade announced, but not supported by a sufficient force, is not to be recognised as real.

The powers which immediately subscribed to this doctrine were France, Prussia, Spain, Denmark and Sweden, the kingdom of the two Sicilies, Austria, and Holland; they, with Russia, equipped armed ships to uphold this new maritime code. Holland, as has already been shown, was the first to suffer. England immediately attacked and crushed her, sweeping her commerce from the seas. France, as is only to be supposed, attained a temporary ascendant in every quarter. With her American colonies in revolt, trouble in Ireland, a depleted exchequer, and the whole maritime power of Europe against her, it appeared as if England must succumb. France, Spain, and Holland had most confident hopes of stripping England of the great bulk of her colonial possessions.

Faced by the "armed neutrality," which at any moment might turn to hostility, England was forced to loosen her hold on her American colonies, with the result that these broke away. The want of unanimity among the allies, Rodney's destruction of the French fleet in the West Indies by the novel manœuvre of breaking the line, together with the defence of Gibraltar, turned the scale in England's favour; but the "armed neutrality" was largely responsible for England signing the peace of 1783 and the Treaty of Versailles, by which Spain kept Minorca and obtained the Floridas. It was also mainly responsible for the loss by England of her American colonies, for it brought pressure to bear in a quarter which meant the relaxation of her grasp upon possessions so far from the theatre of the threatening operations.

It would appear, from the turn events are taking in the British Empire to-day, that there are certain ambitious colonial statesmen who would advocate the creation of independent navies, which, in the event of the mother country being embroiled in war, might, or might not, as the cause and course of the war determined, be allied with the British fleets. Now, it is not at all likely that any exception to naval history will occur here. The inherent weakness of naval alliances is simply a principle of sea-

power; or rather, let us say, the superiority of a homogeneous navy is a principle of sea-power.

It is to be supposed that, in the event of Canada, Australia, or South Africa having hostilities forced upon them by a foreign power as the result of some fancied or real breach of treaty obligations, Great Britain, irrespective of the righteousness or cause of the trouble, would throw her sea-power into the breach, and, probably at the cost of inestimable treasure and many valuable lives, defend her colony. If the independent navies simply joined in such a war as allies, the fancied privileges and rights of the colonials would hamper and considerably weaken British sea-power; and we might have the puerile bickerings as to responsibility and rank which made the Swedish and Danish alliances in 1780 impotent, and which were even noticeable among the colonial and imperial officers during the Anglo-Boer war of 1899–1902.

Sea-power, to be truly effective, must be held by a homogeneous navy, in which jealousy of rank, priority of station, distrust, antagonism of colony, dominion, union, or mother country must be eradicated if the British Empire is to include the empire of the seas.

CHAPTER VIII

THE PERSONAL EQUATION IN SEA-POWER

The result of the naval battle of Tsushima, together with the easy victory achieved by the Japanese, only serves to confirm what every student of naval history is well aware of—that it is men and not ships who decide the issue of the struggle for the command of the sea. The power fortunate enough to have a superiority of seamen, together with capable and efficient naval officers, is the power that will ultimately be victorious. A nation of soldiers may drain its exchequer and place a growing burden upon itself in a vain endeavour to build a fleet with which to secure the command of the sea, and thus dictate to its rivals; but a smaller nation containing a large proportion of seafarers, with maritime traditions behind it, providing, of course, that the sea-sense is properly fostered and kept alive, has little to fear from such a neighbour.

The history of those powers that have from time to time risen to eminence by the power of the sea, contains the names of certain individuals whose genius, influence, and example are responsible for the position attained by their nations.

The victory at Salamis went to the superior seamen. The genius of Themistocles used to the very best effect the sea-sense of those under his command, just as Nelson supplied the qualities of absolute confidence on the part of the fleet in their commander and confidence in themselves, by which the maximum of efficiency from a fleet manned by men of a seafaring race was obtained.

The embodiment of the characteristics and qualities of a people are found in their leaders. We see how, when a people are making for expansion, they choose as their rulers men of a firm, aggressive, and ambitious nature, and

invest them with almost autocratic powers. In admiration for the achievements of the individual, we are apt to overlook the fact that he is but the concentrated qualities of the people at the time: the leader is but the embodiment of the national spirit. We find that when a nation has run its course, has become stationary or decadent, that those in power embody the peace-loving, timorous, and humble qualities of their people.

In the life of each of those seafaring nations who have at different periods of history held the empire of the seas, there has been expressed that sovereignty in the persons of certain outstanding figures; these personalities have improved the qualities and strengthened the characteristics of the people by discovering to them the embodiment of the national spirit of the time.

The Athenians were aroused to the vital importance to themselves of sea-power by the remarkable prescience of one man; but this prescience was undoubtedly the spirit of the people, but expressed by their leader. Themistocles was still quite young when Marathon was fought; and although many of his countrymen were confident that that land-battle had made them secure from further Persian aggression, Themistocles was far-seeing enough to predict an invasion by sea. When he came to power, he set about convincing his countrymen of the danger which he, as a patriot, was so anxious to guard against; he therefore proposed, as a subterfuge, to build a fleet and war against the Ægineatæ, a people who then held the command of the sea. This proposal was so popular among the Athenians, that they were actually persuaded to use the revenue derived from the silver mines of Laurium for the purpose of naval construction, and 100 three-banked galleys were built. Realising that the security of European Greece rested solely upon the sea, this, the earliest, apostle of sea-power devoted his attention to making his material efficient and fully capable of standing the severe strain he foresaw would be put upon it. By every means in his power he encouraged the soldiers and farmers to become seamen;

he attracted the Athenians to the element upon which their country was to be saved.

When at last it was known that Xerxes had definite designs upon Greece, it was Themistocles who anticipated the naval policy, successfully followed centuries later, of advocating meeting the enemy's fleet as near his own shores as possible; but in this he was over-ruled by the commanders of his allies. By the time the Persian fleet appeared off Salamis, Themistocles had secured the full confidence of the Greek navy, and we are told that during the battle great attention was given to all his movements, as it was believed he knew best how to proceed. In the history of sea-power Themistocles stands without a peer; his genius realised the only means by which his country would not only be saved, but become great. As a statesman he had to persuade his countrymen to adopt a policy at first distasteful to them: he had to overcome the jealousy of soldiers who yet remembered the glories of Marathon, and looked with distrust at the sea. He had to persuade the taxpayers to pay heavily for what to them appeared useless and costly ships, to be kept for an indefinite period in idleness. As a naval architect he had to design a vessel superior to those that he knew would be used against him, and in this he succeeded. As a sailor he had to acquaint himself with seamanship; and as a commander he had to select his subordinates, and then handle them with that care and tact as would not, during battle, destroy all the work that had gone before.

At Salamis the course of history was completely diverted. An Eastern stream had flowed towards the West, with every sign of successfully flooding that hemisphere: its course was turned back and along it. During the centuries that ensued, Western civilisation travelled; and this was solely due to the genius of one man interpreting the spirit of the people correctly, recognising the element upon which a battle had to be fought to be made decisive, and possessing the ability to build, man, and command in battle the instrument that alone could make that battle decisive.

One naturally looks to the statesmen of island nations to have a full appreciation of the paramount importance of sea-power, and by their influence and example to imbue their people with the sea-sense and the necessity of holding the command of the sea. It is the duty of every islander to remember that, bereft of sea-power, he and his family are serfs of the country holding the command of the sea. However powerful, ardent, and valiant the army of his country, it is impotent and at the mercy of the naval masters. This indisputable fact has not always been fully appreciated by the statesmen of Great Britain; yet it was recognised by the statesmen of Sicily as far back as the fifth century B.C., and the policy of a powerful fleet for the purpose of securing and holding the command of the sea was advocated by Hermocrates of Syracuse in a remarkable speech which he delivered at Gela in the year 424 B.C.

In view of the trend of events at the last Imperial Conference (1911) as to the naval defence of the British Empire, it is as well to note that Hermocrates, a Corinthian by birth, but a colonist of Sicily, preached the gospel of Sicily for the Sicilians, and advocated a strong navy, so that "they should not let any one out of Sicily meddle in their affairs. . . . They should all join together to keep the strangers out." The subsequent career of Sicily is ample proof of how fallacious this doctrine was, and the events of the past now show us how much wiser it would have been for the Greek colonies to have joined the parent states in forming one powerful navy, and by it creating an empire of the seas.

The overthrow of the Athenian sea-power was mainly due to an adequate conception of the importance of maritime strength by Hermocrates. This statesman, like Themistocles, was also able to carry into practical effect the naval policy to which he had converted his countrymen. As a tactician he was bold, and his very boldness inspired his subordinates with confidence. Had his advice been adopted at the outbreak of war, it is questionable whether Syracuse would have been invested. He argued

that the Athenian fleet, "to sail from Corcyra, their known place of assembling, to Sicily, must first make the Iapygian coast, and would therefore have to pass Tarentum. The harbour of Tarentum, therefore, should be the station for the greatest naval force that can be collected. So numerous a fleet as that of the enemy cannot keep exact order in the long passage across the Ionian Gulf. From the harbour of Tarentum, therefore, we may choose our moment of attack with certain advantage. We shall go into action with our crews refreshed in a friendly port, and our galleys light, the Athenians fatigued with rowing and encumbered with stores; or, should they, at the expense of these, prepare for action, we may, if prudence require it, retire into our port, and wait for fresh advantages. Nor can these fail to offer, for the enemy must again encumber his galleys with stores, or risk to suffer from want, in the passage along a hostile coast. Such being the inconveniences and the hazards which he must have to encounter, I think, if the measure I propose were taken, he would scarcely venture at all to cross the gulf." [1]

Sea-power, when viewed in the narrow sense, has its limitations; and from the speeches delivered by Hermocrates, prior to the war with Athens, we can only assume that he, like certain British and British colonial statesmen of the present day, confused naval war with sea-power. It is true that the former is sea-power in action, but, even when successful, as at Syracuse, it lacks permanency, and therefore does not mean the dominion of the seas.

We have another notable instance of the individual correctly estimating the primary importance of sea-power in the acquisition and retention of dominion. Carausius was in command of the Roman fleet stationed at Boulogne. In A.D. 227 he rebelled from Rome, and with his fleet sailed to Britain. His personality was such as to enable him to keep together a navy sufficient to force the respect of his late imperial masters, and to obtain formal recognition from them of his independence, together with

[1] Thucydides.

the title of Emperor of Britain. Carausius recruited his sea-forces from among the youth of Britain, and instilled into them the knowledge of military and naval arts. Still retaining the important port of Boulogne as a naval base, he was able to command the Channel, and also the mouths of the Seine and the Rhine. For the seven years that this self-elected emperor ruled, it may be safely stated that Britain held the command of the sea. It was only after his death and the navy had lost its commander that Rome succeeded in regaining the lost province.

British sea-power was founded by Carausius; the vigorous naval policy which he pursued for seven years discovered to the natives of Britain the importance of commanding the element which surrounded them. Traditions, possibly exaggerated, of the naval actions in which they took part were handed down from father to son, and thus the sea-sense was kept alive. The material, however, lay dormant, awaiting the coming of another man to recognise its power and make use of it. For six centuries this potential strength was unused, and then the man arose in the person of Alfred the Great. He recognised that Britain was not safe whilst the Danes held the command of the sea; he therefore organised a fleet, and taxed the ports and the maritime districts to support it. This was in the year 875. In this year the newly fledged British navy, consisting of galleys and long ships—these latter a design of the king himself—attacked seven Viking ships, captured one, and chased the rest out to sea. Two years later Alfred's navy had grown to sufficient strength to save his country from the Danes. The Danish force that had landed the year before (876) was entrenched at Exeter, and was anxiously awaiting their relief by a squadron of 160 galleys, which was to run down the Channel to the mouth of the Exe. Alfred's fleet intercepted them, and engaged them off the south coast, driving them back, 120 of the Danish galleys perishing in a storm the following day off the Isle of Purbeck. When peace was declared in 878, Alfred, recognising that this had been brought about by bringing into

play the long-forgotten instrument sea-power, immediately set to work to perfect this instrument, and by 882 he was able to command a fleet in person against a Viking squadron, which he succeeded in destroying. Britain was awakening again to the power of the sea, and three years later a British fleet left its own shores and cruised into the hostile waters of the north. Alfred now set himself to improve the build of his ships. These he doubled in size, using from sixty to eighty oars; the result was greater steadiness and higher speed. The improved navy was then able to deal in earnest with the Viking ships that were still harassing the coasts of Britain, and in the summer of 897 twenty of the ships of these formidable pirates were destroyed.

In eulogising the great work of Alfred, the historians tell us that "he had turned defeat into victory, brought order out of chaos, and left the torn and riven kingdom that he had inherited transformed into the best-organised and most powerful state in Western Europe." But it should also be added that he was only able to accomplish all this by realising, when almost too late, that a sea-girt country must defend itself beyond its barriers. Alfred made no headway against the invaders until he met them upon the high seas. The greatest heritage which he left to his country was not so much a settled England, as a genuine English navy commanding the Channel—a command that was only lost two centuries later by his feeble successors.

The reign of Elizabeth was the real turning-point in the history of British sea-power. Prior to then sea-power had been but an instrument of defence; its far-reaching influence had not been thoroughly grasped. The seamen of Elizabeth's age not only realised that the most powerful navy would command the world, but demonstrated this by actual deeds.

What Sir Walter Raleigh preached, Hawkins, Frobisher, and Drake practised. These seamen were the pioneers of Great Britain's empire of the seas. Raleigh, we know from his writings, appreciated even more than do most states-

men of to-day the important bearing sea-power has upon national life and expansion. The actions of Hawkins, Frobisher, and Drake bear eloquent testimony of a complete understanding of the bearing sea-power has in relation to territorial acquisition and national security.

The voyages made by Sir John Hawkins and Sir Francis Drake, together with the circumnavigation of the world by the latter, aroused the nation to the highest pitch of enthusiasm. The people of England began now to look beyond the horizon of their island. The experiences related in the seaports, and even in the quiet country villages throughout England, by the sailors returning from these blue-water voyages, seduced the youth to maritime life. The gentry invested in ships for voyages of adventure; and, owing to the turbulent condition of affairs, every merchantman was practically a man-of-war. So that by the time the Spanish Armada arrived off the coast of England the personnel of the English navy was highly efficient. This was principally due to the example of seamen like the Howards, Hawkins, Davis, Gilbert, Raleigh, and Drake. Let it also be remembered that the greater number of the men who fought the Armada had been trained at private expense.

Lord Charles Howard of Effingham is one of the numerous examples we find of the influence the individual has played in the shaping of sea-power. When, in 1585, Elizabeth appointed Charles Howard High Admiral of England, the greatest satisfaction prevailed among the seamen; he was a man enjoying the utmost confidence of those he was appointed to command. It was not long before he was called upon to prove his fitness for command, and this he did in a rare manner; for, when ordered by Walsingham to lay up certain ships and discharge the seamen, he, realising the danger in doing so, deliberately disobeyed, but stated that if his sovereign considered his reasons insufficient, he would himself bear the expense of keeping the ships in commission.

When the Spanish fleet was sighted, Howard, recognising the urgency of putting out from Plymouth, supervised in

person the fitting out of the first six ships, with which he at once put to sea, and got in touch with the Armada. The following day he was joined by the remainder of his fleet. From now, until victory was secured, he forced the fighting. The conduct of Lord Howard, together with that of his lieutenant, Drake, set the fighting standard for all the ships in the fleet; and the result shows that they all kept up to it.

The seamanship and fighting efficiency responsible for the defeat of the Armada was largely due to the work of Hawkins and Drake. No stretch of imagination can ascribe the victory to naval tactics. The English ships acted individually, keeping little or no order; they were handier, and were better handled. The seamen were emulating courageous and dashing commanders, who had gained the nation's confidence years before, and who, by their example, had strengthened the sea-sense of their countrymen.

The influence exercised by the sea-commanders of Elizabeth's reign upon sea-power was more in the nature of moulding the material and of securing for English sailors a high reputation for seamanship and fighting qualities. Knowledge of naval tactics was yet in its infancy, and battles were decided more by hard fighting than by tactical skill.

It is not until the middle of the seventeenth century that we encounter anything like tactical skill on the part of the naval commanders; and here again we discern the influence of the individual. Martin van Tromp, when a boy of nine years of age, was captured on board a Dutch merchantman by an English cruiser, and for some years he served in the English navy. He took note of the fact that when there were two or more English ships together, a certain time was spent in drilling them to manœuvre in unison and by signal. Upon his escape he joined the Dutch navy, and at the age of forty was made lieutenant-admiral. In the war with Spain he was able to demonstrate the efficacy of tactical skill. His reputation was gained by the destruction, in February 1637, of a large

Spanish fleet near Gravelines; a few months later, again by superior tactical knowledge, he defeated the combined fleets of Spain and Portugal.

When war broke out between England and the Netherlands (1652), the prestige of van Tromp had considerable influence upon the fighting powers of his command. For a commander to have a high reputation as a hard and capable fighter, and, above all, that of a successful leader, means increasing the fighting power of the command beyond estimate.

In the war with England in 1652 van Tromp had as his second in command the famous seaman De Ruyter. Curiously enough, these great admirals were opposed by the equally famous Englishmen, Blake, Monk, and Dean, the latter of whom was killed early in the war. Consequently, in the naval battles which ensued we see a distinct advance in naval tactical skill. Here can be seen the influence, the ordered and studied direction of the master-mind, the value of discipline and training, and the knowledge of how to use this to the best advantage. Here, too, we see the recognition of the value of strategic position.

The struggle between the Dutch and the English for the command of the sea, from 1652 to 1672, marked a still further advance in tactical skill. In the engagement between Monk and De Ruyter we notice a strong resemblance to the tactics employed by Nelson at the Nile nearly a century and a half later.

The Dutch admirals, Martin van Tromp, De Ruyter, and Cornelius van Tromp, together with the English admirals, Monk and Blake, in their naval contests, which lasted for twenty years, demonstrated to succeeding sailors the value of tactical knowledge. They placed on record lessons which later proved of the greatest value, especially to the naval commanders of Great Britain; and it may be said with the greatest truth that sea-power was strengthened considerably by the tactical improvements made in naval warfare by these admirals.

By the end of the seventeenth century we find that con-

siderable strides in naval strategy and tactics had been made. In the war of the League of Augsburg the seamanship and tactical ability of the French admiral, Tourville, stand out conspicuously, although certain naval historians severely criticise him for not pursuing with greater vigour after defeating the allied fleets of England and Holland off Beachy Head (July 1690). The personality of this sea commander contributed materially to the morale of the French navy at this period; but this war is notable for having established the soundness of what should to-day be considered as a principle in naval strategy, viz., of an inferior naval power keeping a fleet intact, termed by the Earl of Torrington the fleet-in-being. But for the great moral courage of Torrington, England at this time would have been laid open to invasion. Torrington, at the expense of being made a scapegoat, had to accomplish by strategy what should have been done by overwhelming naval strength, had his advice and warnings been listened to prior to the outbreak of the war. The day before he came in sight of the French fleet he wrote to Lord Nottingham: "To-morrow will probably be the deciding day; let them tremble at the consequence whose fault it was the fleet is no stronger." But the following day was not the deciding day; for some unaccountable reason Tourville refused battle. Torrington, however, was able to take particular note of the overwhelming strength of the enemy, and that evening he wrote again to Lord Nottingham: "Their great strength and caution have put soberer thoughts into my head, and have made me very heartily give God thanks they declined the battle yesterday, and, indeed, I shall not think myself very unhappy if I can get rid of them without fighting, unless it may be upon equaller terms than for the present I see any prospect of. I find I am not the only man of that opinion, for a council of war I called this morning unanimously agreed we are by all manner of means to shun fighting with them, especially if they have the wind of us, and retire, if we cannot avoid it otherwise, even to the Gunfleet, the only place we can

with any manner of probability make our party good with them in the condition we are in, . . . a strength that puts me beside the hopes of success, if we should fight, and really may not only endanger the losing of the fleet, but at least the quiet of our country too ; for if we are beaten, they, being absolute masters of the sea, will be at great liberty of doing many things they dare not attempt whilst we observe them. . . . But had I been believed in winter, the kingdom had not received this insult. Your lordship now knows the opinion of the flag-officers of both Dutch and English fleets, which I desire you will lay before her Majesty." [1]

As Lord Nottingham, one of the queen's advisers, was mainly responsible for Torrington's advice for naval preparedness being ignored, these letters were extremely unpalatable. He refused to believe the parlous condition he and his colleagues had reduced the kingdom to by their ignorance of the very first principles of defence, and he failed to understand the naval situation even after it had been so clearly put before him by Torrington's letter of the 26th ; but, knowing the strength of the man he had to deal with, he recognised that nothing but a direct command from his sovereign would make him alter his plans. And here we have an illustration of the grave danger to a country of political interference in naval and military plans. Nottingham therefore sent a direct order, signed by the queen : "We apprehend the consequences of your retiring to the Gunfleet to be so fatal, that we choose rather you should, upon any advantage of the wind, give battle to the enemy than retreat further than is necessary to get an advantage upon the enemy."

In accordance with his order, Torrington engaged the following day, 30th June ; but even in the heat of action he remembered that the destruction of the allied fleet would lay England and Holland open, that the command of the sea would pass to the French, whose terms of peace would be such as to assure that command for the future. Ex-

[1] Entick, *A New Naval History*, pp. 548, 549.

perience with his own Government had shown clearly that the most humiliating terms would be accepted by the weak statesmen then in power. By the end of the day, his losses, though not serious, were sufficient to show him that he was hopelessly defeated; therefore in the evening he weighed, and taking in tow the disabled ships, beat to the eastward. He was pursued by the French in line of battle. It is here that Tourville is blamed by naval critics for his over-caution. Having gained the shelter of Dover, the allies quickly refitted, and the French fleet was powerless. There was still in existence a fleet, inferior, it is true, but each day made more uncertain the measure of inferiority. It was still a power to harass and to observe, and therefore reduced to impotency the victorious fleet.

In his defence before the court-martial, which honourably acquitted him, Torrington stated his reasons thus: "It is true, the French made no great advantage of their victory, though they put us to a great charge in keeping up the militia; but had I fought otherwise our fleet had been totally lost, and the kingdom laid open to an invasion. . . . As it was, most men were in fear that the French would invade, but I was always of another opinion; for I always said that, whilst we had a fleet-in-being, they would not dare to make an attempt." [1]

Torrington's insistence on the vital importance of a fleet-in-being had a profound effect upon the naval strategy of the succeeding century, and the lesson is one which no maritime people can afford to neglect.

At the time that Torrington and Tourville were proving to the world at large that sea-power was the governing factor in national life and expansion, Peter the Great ascended the throne of Russia. That he had been a close and shrewd observer of the events that were then occurring among the rising nations of Europe is evident from a letter he wrote to the Patriarch Adrian, in which he says: "We work to effectually conquer the art of the sea, in order that,

[1] Entick, p. 549.

on our return to Russia, being completely instructed, we may be victorious over the enemies of Christ." At this time (1690) the Baltic was commanded by a Swedish navy, the command of the Black Sea was held by the Turks, and the Caspian by the Persians; Archangel was therefore the only seaport of Russia. Peter foresaw that if his people were to progress along with the leading powers of Europe, then they too must have a maritime policy. This would call for seaports and a navy. He decided upon securing an outlet on the Black Sea, and therefore besieged Azof. His failure in this only brought home to him the inexorable law of sea-power; for the Turks, holding the command of the sea, were able to keep open their communications. Peter now set to work to build a fleet of galleys and boats; this work was carried out on the banks of the Don. When completed, Azof was blockaded by land and sea, and was finally taken. Here, then, was the dawn of Russia's sea-power, such as it has been, and such as it now is; but her emancipation dates from her reaching the seaboard. Peter the Great was determined to give his hide-bound empire an outlet on the Baltic, and with that object in view he set about the conquest of the Swedish territory between Russia and that sea; he built numbers of small craft on the rivers and lakes then in his hands. By 1702 Lake Ladoga had been secured from the Swedes, and from here a few months later the mouth of the Neva was reached and then secured, and at last Russia had gained a footing on the shores of the Baltic. In 1703 Peter erected a dockyard at Olonyetz, on Lake Ladoga, for the purpose of building sea-going ships.

In May 1713 the newly fledged Russian navy fought its first oversea action, taking Helsingfors and Abo. This expedition was under the command of Admiral Apraxine, with the Tsar, Peter the Great, as second in command. The following year the emperor commanded in person a fleet of thirty ships of the line, defeating a small Swedish force off the island of Aland. By this time Peter had succeeded in making himself master of a considerable strip

of the Swedish coast, and thus secured a permanent seaboard for his dominions.

When, in 1725, this remarkable ruler died, he had, solely through the recognition and the employment of sea-power, added six new provinces to the empire; he gave to Russia an outlet upon two seas, built her a navy, and created a naval academy. Such importance as Russia now holds in the concert of nations is due to the genius of Peter the Great. The obstacles he had to overcome were abnormally great. His people were not fitted by nature to assist him in achieving the object he had in view; and even when he had made the territorial conquests from Sweden and Turkey, Russia had only secured a seaboard in all respects inferior to that possessed by other great powers, nor was it a seaboard that could provide a seafaring population sufficient or competent to man a fleet of the dimensions necessary to challenge the command of the seas.

The eighteenth century will always be regarded as the age of great seamen. Nations for long pent up within their own borders were now making use of the common highway leading at that time to little-known or unknown lands. The example set in the British navy by Hawke, Boscawen, Rodney, and their contemporaries stimulated the seamanship and fighting qualities of the navy, and kept alive the sea-sense and enthusiasm of the nation; and these personalities, each in their turn, strengthened the sea-power of Great Britain.

The battle of the Nile had the decisive effect of destroying Napoleon's communications between France and his army in Egypt, with the natural result of the failure of the French emperor's enterprise. Few statesmen and fewer soldiers in Europe at that time had fully grasped the far-reaching effects of sea-power, but the immediate result of the defeat of the French fleet at the Nile was so palpable that even the most prejudiced had to confess that sea-power must always be the governing factor in any war waged in a country not absolutely self-contained. But

how many people realise that the battle of the Nile was not the accidental meeting of the French and English fleets, that it was a fine example of grand tactics, and is one of the many instances in the life of Nelson that go to show to the present generation of sailors that fitness for command in war may be acquired during a long peace. It is universally acknowledged that Nelson as a naval commander is without a peer; yet in the earlier years of his service he was unable to find opportunities of distinguishing himself. A long period of peace gave him opportunities for study, and that he did so study is evident from the fact that Lord Hood referred to Nelson as an officer to be consulted on "questions relative to naval tactics"; and yet at that time he had never served with a fleet.

But Nelson's subsequent service shows us that his studies embraced far more than "tactics." He had fully mastered all that related to the conduct of war, and had anticipated Admirals Mahan and Colomb in a complete understanding of the working of the principles of sea-power, which he demonstrated by practical application. Nelson possessed qualities which have never since, and which were rarely before, found in any great war leader. He was equally qualified to shine in the Cabinet as in the field; upon different occasions he discharged the duties of a statesman with consummate skill.

The more closely we examine the tactical achievements of Nelson, the more effective do we find them. His tactical formations were invariably well kept, as he was always careful to take his subordinates into his full confidence, and place them in possession of his general plans. As showing the relationship between Nelson and his subordinates, we need but quote his letter to Lord Howe after the battle of the Nile, in which he said: "I had the happiness to command a band of brothers." A very great deal of the success of Nelson in battle was due to the great affection with which he inspired all ranks for himself. One of his captains, who was also killed at Trafalgar, in writing of Nelson, said: "This Nelson is so lovable and excellent

a man that we all wish to exceed his desires and anticipate his orders." A leader who can inspire such confidence among all ranks as did Nelson is almost invariably a victorious commander. An unpopular man possessing all the other qualities essential in a commander, rarely if ever is successful in battle; for it is then that he requires the most loyal and unselfish help from all his subordinates, and it is not in human nature to give this to a man who, by undue aloofness or petty tyranny, has made himself disliked. And just as we have seen how victory can be won by the great and human qualities of one man, so do we find that battles—and important battles—have been lost through the lack of these or the possession of the very opposite qualities in the leader. For instance, let us take the case of the engagement off Toulon between the British fleet and the combined French and Spanish fleets in February 1744. The British fleet consisted of twenty-nine ships to the allies' twenty-seven. Matthews, commanding the British fleet, is said to have been a rude, domineering, unapproachable man, disliked by his subordinates. That he was a brave man and a good seaman was abundantly proved during the engagement; but he failed to have the support of his captains, with the result that the battle was indecisive. The vice-admiral in command of the rear division failed to engage the enemy, though well able to do so. This strange behaviour has been generally attributed to ill-will towards Admiral Matthews. He was acquitted by the court-martial which tried him, together with six captains, for the part they took in this affair. Four of the latter were found guilty of misconduct, and cashiered.

But a few instances have been here cited of the influence the personal equation has had in the advance of sea-power to the important position it now holds in the governance of nations. To-day this personal equation, which we have seen in the past to have been the determining factor in deciding the power that was to hold the seas, may be found in varying positions and places. It may be on the quarter-deck of a flagship, on the fighting-deck, behind the gun or

torpedo, or in a submarine, in the Admiralty Office or in the Cabinet. In times of peace it is to be hoped that it is always in a British Cabinet. Long periods of peace tend to cramp that individuality, fearlessness of responsibility, that readiness to size up the immediate situation so noticeable in Nelson; yet let it be remembered that Nelson developed by study and reflection, during a period of naval inactivity, those very qualities which he afterwards so brilliantly displayed in action.

CHAPTER IX

GOVERNMENT AND SEA-POWER

That it is possible for the Government of a country unfavourably situated to bring into being an artificial sea-power was demonstrated by Peter the Great of Russia. That Government neglect will kill sea-power and reduce its people from the first rank of nations to the most insignificant position in the concert has with equal force been proved in the case of Holland. The Dutch were destroyed by party government, the dissensions and strife of which destroyed national union, and the national sense was killed.

Sismondi is only partly correct when he says "that government has the most far-reaching influence upon the character of the people. National virtues and vices, national energy and effeminacy, national talents, intelligence, and ignorance are produced by national laws. Nature gave all to all, and government makes men what they are." [1] History repeats time and time again, with unwearying reiteration, that the people get that government which they deserve: the government is a reflex of the people. Changes in the form of government invariably, though not always immediately apparent, come from a change in the character of the people. A contemporary writer says that "in Rome the change from an aristocratic republic to a democracy turned the most manly people the world has seen into the most unmanly and corrupt proletariat." But had not the change of character in the people taken place before it was manifested in the change of government? Naturally a manly people look for and place in power a courageous and strong form of government, be it autocratic or democratic, just as an effeminate people will seek to place over

[1] Sismondi, *Histoire des Républiques Italiennes.*

themselves a system of government in keeping with their character. That the party system of government is injurious to sea-power was likewise demonstrated by Carthage of old, and by Holland in more recent times.

The opposition, in its anxiety to get into power, attacks the Government upon all imaginable questions ; the popular question has always been extravagant expenditure. The Government, anxious to keep in power, usually panders to the popular feeling in peace time, and—especially if that peace has been a long one—the fighting services suffer.

If an autocratic lady such as Queen Elizabeth, seated firmly upon the throne, was not able to restrain a desire to weaken her navy in the very face of a naval war, how can we expect a Government, consisting of men holding office at the will of a captious electorate, to withstand demands for retrenchment when put forward by apparently responsible representatives of the people, backed up by specious arguments, solely made for the purpose of securing office.

The very worst form of government under which sea-power could struggle is undoubtedly the party system. The maritime supremacy of Holland withered under its baneful influence, as also did that of Venice. Within recent years we have seen certain disclosures regarding the wretched condition of the French navy, and the blame was attributed to the system of party government.

The history of England contains passages which reflect shameful neglect of the navy on the part of the Government of the day, and there is likewise ample evidence to show that, from time to time, the sovereign's advisers have been hopelessly ignorant of the vital bearing sea-power has upon the very existence of the British Isles.

The primary duty of any Government is to give security to the nation. Without security, prosperity becomes a danger ; and a prosperous people weak in its own defence becomes the prey of its strongest neighbour. Security from invasion and conquest, being the first and the most sacred obligation of a Government, should therefore be con-

sidered by the people, and be impressed upon the people's representatives by the people themselves, as being above the plane of party politics. To territorial nations this is much more difficult than is the case of a maritime people like the British or the Japanese. The question of the strength of the standing army can be discussed, although it should not, upon party lines, in the British House of Commons or in the Japanese Diet, without weakening the security of either of these two maritime kingdoms, provided that a common understanding is arrived at that the recommendations of the naval advisers are unquestionably adopted and carried into effect by the Government of the day, and supported by all shades of political opinion.

History is full of regrettable examples of the disastrous results of a nation allowing its first line of defence to be made a political party question. The decline of Carthage was solely due to the influence of Hanno, the leader in the Senate of the "peace-at-any-price" party. Here we have an instance of a political party sacrificing the nation in its ambition for temporary power.

The first line of defence of a maritime people is more likely to suffer from neglect by the Government than is that of a territorial nation, by reason of the fact that the source of danger is beyond the horizon. A territorial nation has well-defined frontiers, the crossing of which is invasion; the strength to defend these frontiers is approximately known; the people are more constantly in touch with their neighbours than is the case of a maritime people, and are more alive to the possibility of invasion, and therefore support the Government in its demands for an adequate first line of defence.

The command of the sea is less obvious to the average inhabitant of a maritime state than the command of the frontier is to the average man of a territorial state; hence the former fails to take the same interest in the question of defence, and neglects to give his assistance in raising it above the plane of party politics. It is just here that many Governments of maritime states have failed. Either

ignorant themselves of the principles of sea-power, or indifferent as to its working in relation to the security of their country, they have neglected to keep before the nation the means by which safety is assured.

It was fortunate for England that, during her wars with Holland, the Government of the latter country was as neglectful of its navy and seamen as was the Administration in London.

Samuel Pepys, writing on the 10th June 1661, says that Sir G. Carteret and he agreed upon a letter to the Duke of York, pointing out the sad condition of the Admiralty for want of money—"how men are not able to serve us more without some money, and that now the credit of the office is brought so low that none will sell us anything without our personal security given for the same." A few days later he writes: "This morning Sir W. Penn, Sir W. Batten, and I waited upon the Duke of York . . . to give him an account of the condition of the navy for lack of money, and how our own very bills are offered upon the Exchange, to be sold at 20 in the 100 loss. He is much troubled at it, and will speak to the king and council of it this morning." Nothing, however, was done, for a few months later we find the same writer bitterly complaining: "The want of money puts all things, and, above all, the navy, out of order, and yet I do not see that the king takes care to bring in any money, but thinks of new designs to lay out money." Only a few months before these complaints were made, the Navy Board was permanently settled by commission under the great seal. It was to consist of a controller, surveyor, treasurer, clerk of the navy, and three commissioners, who had each their separate departments, and were to be styled the Principal Officers and Commissioners of His Majesty's Navy. Their salary was fixed at £500 per annum each; but from the evidence which Pepys, who at this time practically controlled the Admiralty Board, leaves behind him, we can clearly see that the working of sea-power and its bearing upon the security of the British Isles was in no way understood by

any connected with the Administration. At this time it was known that war might break out between Holland and England; jealousy between the merchants of both countries was running high; the "right of the flag," which England successfully claimed, was a constant cause of irritation to seamen of the high order that the Dutch were at that time. Any capable statesman in England at the time must have seen that war was inevitable; yet two years before it actually broke out, with every sign that it must come, we find that the amount voted for the navy for the year 1662 was but £374,743. The next year—the year before the war—Pepys states that "by appointment our full Board met, and Sir Philip Warwick and Sir Robert Long came from my Lord Treasurer to speak with us about the state of the debts of the navy, and how to settle it, so as to begin upon the new foundation of £200,000 per annum, which the king is now resolved not to exceed." Then a few months later he says: "Parliament is likely to make a great bustle before they will give the king any money; will call all things in question, and, above all, the expenses of the navy; and do inquire into the king's expenses everywhere, and into the truth of the report of people being forced to sell their bills at 15 per cent. loss in the navy."

Although we find that the Government of the day had neglected to provide anything like an adequate number of ships for the defence of the country, and were in debt for those that were in commission, as well as in arrears with the men's pay, the maritime people with whom they were at war had suffered through the neglect of their Government to even a worse extent. Had it not been so, then England must have lost the command of the sea, and with it her oversea possessions; her commerce, and not that of Holland, would have been swept from the seas.

At the outbreak of the war England could only commission 109 ships of the line, of which thirty-four were from 50 to 100 guns. The Dutch fleet, through political bickerings, had been cut down to 103 ships of the line, of which thirty-seven carried from 50 to 78 guns. Retrenchment

had left the magazines empty; political interference had created six lieutenant-admirals of equal rank. Immediately war broke out, the command of the fleet—a fleet with the finest traditions—was not given to an experienced seaman, but, through political favour, to an ex-colonel of cavalry, Opdam van Wassenaer. Worse still, a fleet unfit for battle, nominally commanded by a soldier, was actually commanded by the politicians at home. Each day despatch-boats were sent out with imperative orders that under any circumstances he was to attack the English fleet. When Opdam did sight the enemy, he had a contrary wind; he therefore assembled a council of war, which was of opinion that the attack could only be made, with any hope of success, when the wind changed. Opdam then showed his written orders, and upon these ordered the attack, which resulted in the death-blow to Dutch sea-power, and cleared the way for the rapid advance of the sea-power of England. But in this case England did not deserve her success. The Government had starved the very means of her existence. What might have been the issue had Holland possessed the fleet of ten years before? England was not to know that the Dutch were unable to place such a fleet in commission; nor was the English Government to know that at the last moment an amateur seaman would supersede Vice-Admiral van Tromp and other experienced admirals. Indeed, we see from Pepys that upon the outbreak of war he and others, who realised how grievously the service had been starved, feared an action. Party political requirements completely demoralised one of the finest fighting navies the world until then had seen. But before this war was over the inhabitants of Great Britain were to receive another reminder of the only means by which they could lose their liberty, and the grave danger the country was to run if the Government (the advisers of the sovereign) were ignorant of the working of sea-power. At the beginning of 1667, when the war still had some time to run, there was £900,000 owing to the navy. As only £35,000 was voted for commissioning the fleet for the year,

when six times the amount was required, the Government, as the result shows, most unwisely took out of commission a number of ships and retrenched seamen and dockyard men. It was then that De Ruyter appeared off the Thames and burnt the shipping at Sheerness. That the king's advisers realised their guilt is admitted from the panic they were in. Pepys did not disguise his fear for his own safety and that of his colleagues at the Admiralty, for he says: "And the truth is, I do fear so much that the whole kingdom is undone, that I do this night resolve to study with my father and wife what to do with the little that I have in money with me, for I give up all the rest that I have in the king's hands, for Tangier for lost. So God help us! And God knows what disorders we may fall into, and whether any violence on this office, or perhaps some severity upon our persons, as being reckoned by the silly people, or perhaps may, by policy of State, be thought fit to be condemned by the king and Duke of York and so put to trouble. . . . And others about the king cry out that the office of the ordnance hath been so backward as no powder to have been at Chatham nor Upnor Castle till such a time, and the carriages all broken . . . and do think verily that the French, being come down with an army to Dunkirke, it is to invade us, and that we shall be invaded. . . . I made my will also this day, and did give all I had equally between my father and wife."

That great and serious discontent was rife throughout the English navy during this war is evident from Pepys' own admissions. He says that a witness informed him of Englishmen on board the Dutch ships, speaking to one another in English, saying: "We did heretofore fight for tickets, now we fight for dollars!"

"And several seamen came this morning to me, to tell me that if I could get their tickets paid they would go and do all they could against the Dutch, but otherwise they would not venture being killed, and lose all they had already fought for; so that I was forced to try what I could do to get them paid. . . . Only some little money

we have, which we are fain to pay the men we have every night, or they will not work; and indeed the hearts as well as the affections of the seamen are turned away, and in the open streets in Wapping, and up and down, the wives have cried publicly, 'This comes of your not paying our husbands; and now your work is undone, or done by hands that understand it not.' . . . And Pelling, the potticary, tells me the world says all over, that less charge than what the kingdom is put to, of one kind or other, by this business, would have set out all our great ships. . . . And I do believe it will cost blood to answer for these miscarriages." [1] When we come to consider the disgraceful conduct of those men who at the time acted as the sovereign's advisers, it speaks well for the temper of the seamen and the public that bloodshed did not occur. The sailors had not received a penny of the previous year's pay, nor had the dockyard hands; they were given tickets, which for want they were forced to discount at great loss to themselves. The moral effect that this Dutch descent upon Chatham had upon the seamen and the nation as a whole was for some time demoralising. So panic-stricken did the people become, and out-of-hand the seamen, that had the Dutch Government been one whit better than the English Administration, London itself could, with the greatest of ease, have been reached. We hear that for months after De Ruyter's attack upon Chatham the English captains made daily calls to the Admiralty, complaining that their men were out-of-hand, that they "come and go when they will, and will not be commanded though they are paid every night, or may be."

Whatever risks were run by the parsimonious and short-sighted policy of retrenchment during war with a strong naval power, were fortunately minimised by the employment of capable officers. Political interference in England had not gone to the length during this war that it had in Holland, nor to the disastrous lengths that it was carried during the reign of William and Mary.

[1] *Diary of Samuel Pepys*, vol. iii. pp. 124, 125.

The thundering of the Dutchmen's guns in the Thames did not awake Charles II. and his advisers to the grave danger that threatened the kingdom, for during this reign the navy dwindled, until, on the death of the king, it had been so much neglected that there were only twenty-four ships at sea, none above a fourth-rate, and the total number of seamen employed did not exceed 3000. Thirty new ships that had been built actually rotted at their moorings.

Whatever the faults of James II., his short reign is ample evidence that he possessed a full appreciation of the importance of sea-power; and here at least he was able to influence his Government and the Parliament to grant him the necessary supplies with which to restore the fleet his brother's faulty administration had annihilated. James, as Duke of York and Lord High Admiral, had in several sea-fights proved himself a seaman of no mean ability; he was therefore able, when he came to the throne, to direct his naval policy with professional ability. When he abdicated on 12th December 1688, he left to his successor a navy consisting of 117 ships, mounting 6930 guns, and manned by 42,008 men. One hundred and ten of these vessels were ships of the line, and the total tonnage of the navy was 101,032.

Now here we have an object-lesson of what a Government (whether that Government be a one-man Government or a twenty-men Government is beside the mark) can do in the matter of sea-power. It is true that James forged a weapon to be used in a very short time against himself, but as a sailor he realised that England's very existence depended upon having this weapon. But barely two years later this navy, through political interference and ineptitude, risked being swept from the seas, and was only saved by the strategic skill and high moral courage of Torrington withdrawing before superior strength at Beachy Head (1690). Nottingham and Russell—the one a personal enemy and the other a professional rival of Torrington—were the principals in the central Government vested in Mary as regent during William's absence in Ireland. Upon

their advice Mary ordered Torrington to engage Tourville—orders which have been shown in a preceding chapter. He only partly obeyed; his action saved England from invasion and William his throne. The latter showed his gratitude by cashiering Torrington, punishing several members of the court-martial that had tried and acquitted the admiral, and dismissing forty-two officers from the navy. These unjust and drastic measures were undoubtedly due to the influence of the king's advisers, Nottingham and Russell, who were deeply hurt at the soundness of Torrington's strategy having been confirmed by a court-martial of professional men. The fact that the efficient navy taken over by him two years before had been allowed to fall below a safe standard by his Government's neglect and ignorance did not weigh with William in his treatment of Torrington and his officers, but that he recognised where the fault lay is evident from the fact that between June 1690 and May 1692 every nerve was strained to bring the fleet up to the proper strength. William and his Government were now of opinion that the nation's security rested solely on the sea, and this opinion was confirmed by the victory at La Hogue in May 1692. As a result of this victory and the important consequences which followed, William's Government showed a more intelligent interest in the navy, so much so that at his death its strength had increased to 256 vessels, made up of 128 ships of the line, 46 frigates, and 87 fire-ships, mounting 9300 guns and manned by 52,000 men.

The stress of war during the first half of the eighteenth century had the effect of quickening the people's interest in the weapon which could alone defend them from invasion, and the Government of the day were perforce compelled to foster the navy. On the signing of the Peace of Aix-la-Chapelle, October 1748, the strength of the British navy was 230 ships, with a total tonnage of 259,428 tons, mounting 12,196 guns, and manned by 82,345 men. And here it must be confessed that the Government of the day had kept abreast of its obligations, and loyally met the demands

made by its technical advisers for increased construction and more men.

The sea-power of a country ruled by party government is always open to suffer from ignorance, callous indifference, parsimony, opposition criticism, and political advancement of officers. These are blighting elements which may be at work just as disastrously during peace as in war. In war another danger may be looked for in a party-run country, and that is, political interference in naval strategy.

As regards the advancement of officers by political influence during the eighteenth and part of the nineteenth century, we know from the evidence before us what a grave deterrent this was to the efficiency of the British navy, and how it was one of the causes of the mutinies of Spithead and the Nore.

If ever there was an occasion on which political interest should not have interfered with promotion, Trafalgar should have been the exception; yet we find that the Admiralty could not possibly disappoint their political friends at home, for the sake of rewarding those who had gained the most glorious victory that ever graced naval annals. Shortly after the battle, Lord Collingwood wrote the following letter to Lord Barham, which, and the reply thereto, throws some light on the means by which promotion was obtained in those days :—

"I beg to express my earnest hope that your lordship will take into consideration the peculiar circumstances of the late action, in which as much gallantry was displayed by the fleet, and a powerful armament of the enemy ruined in as short a time as in any action; but what distinguished it from all others is that the usual rewards to the captains, arising from the sale of prizes, is almost all lost by the wreck and destruction of the ships. What Government may please to do in this respect for the fleet I cannot say, but none was ever more worthy of its regard. To the officers, among whom are many young men who are qualified for lieutenants, the most grateful reward would be

promotion; and if your lordship would enable me to dispense it to them, by commissioning the four ships, and appointing the officers serving in this fleet, I should feel exceedingly gratified in having it in my power to reward so much merit as is now before me. I have mentioned this subject, in the full confidence that your lordship feels the same disposition towards them with myself, and in doing it I have only performed a duty which I owe to them."

To this communication Lord Barham answers :—

"In order to prevent disappointment to individuals, I must beg that you will strictly conform to the rules laid down by the Admiralty, by which they leave deaths and court-martial vacancies to the commanding officer, and reserve all others to themselves. I am the more particular on these subjects, because the neglect of them has created much disappointment to individuals as well as their friends here. I shall trouble you through my secretary with a list of such persons as I wish to fill the Admiralty vacancies."

A year later Lord Collingwood, writing to an officer who had been passed over for promotion, said :—

"Lord Mulgrave knows my opinion of you and the confidence I have in you, but the truth is that he is so pressed by persons having Parliamentary influence that he cannot find himself at liberty to select those whose nautical skill and gallantry would otherwise present them as proper men for the service. A hole or two in the skin will not weigh against a vote in Parliament, and my influence is very light at present."

Lord Collingwood, therefore, who was continually serving and was the best judge of the merit of officers, was powerless to provide for those persons serving under his eye, who had assisted him in gaining victories, or in performing those more irksome and less splendid services, which pre-

vented even the possibility of victory, by confining the enemy's ships to their own port, because all the posts which should have been their reward were given in exchange for votes in Parliament. If the persons thus provided for had turned out efficient officers, if they had been capable of serving the country after being thus unduly promoted, or if their services had not been a greater injury than paying them to do nothing, there would be less reason to reprehend the practice. It can hardly be expected that those who are sure of promotion and employment whenever they please to ask for it will take any trouble to acquire the knowledge and skill necessary to fulfil their duties. They are therefore either indolent or supine, and then other officers perform what they are paid for performing. It is on these very points that Lord Collingwood's opinions, forced on him during long periods of active service and actual experience, and which are never unsupported by facts, are of great value. It may be argued that the conditions are entirely different to-day; but we must not forget that these conditions have only changed with a long peace, and that the political promotions, so strongly protested against by one of England's greatest admirals, were made during England's last naval war.

We have seen that three important naval actions fought within rapid communicating distance of the Governments whose fleets were engaged, were affected by Government interference. Opdam was forced by his Ministers, who knew nothing of the conditions that had to be met, to fight Lowestoft; the same wanton and panic-stricken interference from a government nearly lost England her command of the sea at Beachy Head, and the same form of interference crushed Tourville at La Hogue. The tardy means of communication during the naval wars of the past, made such interference impossible, except in the three instances recorded where it was possible; there we find it to have occurred, and, as is only to be expected, with most disastrous results. The march of science has to-day unfortunately brought the commander of a fleet into almost direct

communication with his Cabinet Minister, and there are very few parts of the world in which a naval action can be fought, where a Minister cannot interfere up to and during an actual engagement. A Government, and especially a party-ruled Government, are apt to count the cost of an engagement in pounds, shillings, and pence. Not so the sound strategist: he recognises that however costly in lives and money an action is, providing it be a decisive action, it is sound economy. Such a fearsome policy was adopted by the French Government in the four years' war with England 1756–1760.

"The Government, always finding the expenses exacted by the employment of the navy excessive, too often prescribed to its admirals to keep the sea as long as possible, without coming to pitched battles, or even to brushes, generally very expensive, and from which might follow the loss of ships difficult to replace. Often they were enjoined, if driven to accept action, carefully to avoid compromising the fate of their squadron by too decisive encounters. They thought themselves, therefore, obliged to retreat as soon as an engagement took too serious a turn; thus they acquired the unhappy habit of voluntarily yielding the field of battle as soon as an enemy, even inferior, boldly disputed it with them. Thus to send a fleet to meet the enemy, only to retire shamefully from his presence; to receive action instead of offering it; to begin battles only to end them with the semblance of defeat; to ruin moral force in order to save physical force. This was the spirit which, as has been very judiciously said by M. Charles Dupin, guided the French ministry of that epoch." [1]

Sea-power to thrive must then have the sympathetic and knowledgeable support of the Government of the day, its control must be in the hands of men removed from political life. To a nation like the British, whose name is symbolical with sea-power, this is self-evident. Great Britain governed by party government, and those great

[1] Troude, *Batailles Navales de la France*, vol. ii. pp. 5–6.

dominions which are now the main walls of the British Empire, must recognise that this, the grandest monument the world has ever seen, would crumble, once sea-power, the instrument which raised it, ever became the plaything of party politics.

CHAPTER X

THE NATION AND SEA-POWER

There are nations that have grown into being by the power of the sea; such, however, are essentially maritime peoples and possess natural sea-power. Artificial sea-power belongs to a people who, over-running the borders of an inland state, have at last reached a seaboard, and then for political reasons have built maritime defence; Russia is a case in point.

Certain writers hold that natural sea-power can only belong to an island or partly insular people, but historical facts do not bear witness to this assertion. It is correct that a truly great maritime race require a lengthy seaboard and either a narrow or inhospitable hinterland, together with ready approaches to the sea and inducements to live constantly upon it.

Sea-power, to be effective—that is, to be power at all—must have the natural backing of the calling of the people themselves. It can well be imagined that Switzerland or Afghanistan, given sufficient wealth and the loan of a port or two, might place upon the sea a powerful navy; but this would not constitute sea-power, for it would be physically impossible for such a nation to be behind the navy. The nations that stand out in the history of the world, are the natural sea-powers of Portugal, Spain, Holland, and England. The extraordinary intellectual activity of the people of Europe during the fifteenth century, after the torpor of ages, carried them forward to high advancement in most branches of science, but more especially nautical. The political condition of Europe at this time placed certain countries in a favourable situation for nautical adventure. Under the Roman Empire the trade with the East had

gravitated to Rome as the commercial capital of the West; with the dissolution of the empire, it continued to be conducted through the channel of the Italian ports. Portugal and Spain, placed on the remote frontiers of the continent, being far removed from the main routes of the Eastern intercourse, viewed with jealousy this monopoly of the Italian states, by which they were rapidly rising in power and opulence. The two nations of Spain and Portugal were led to turn to the ocean, which bounded them on the west, and to endeavour to seek from it compensations, and, if possible, to discover a new route towards the East. The Portuguese were the first to enter on the brilliant path of nautical discovery, which they pursued under the Infant Don Henry; and they pursued it with such activity, that before the middle of the fifteenth century they had arrived as far as Cape Verde, and before its close, had rounded the Cape of Good Hope. The return of each navigator, with wonderful tales and proofs of his voyage, only stimulated the nation to fresh ventures. The spirit of emulation pervaded the whole people, and the setting out on a voyage of one or more ships, or the return from voyages, which rarely were of less duration than two years, was a matter for national rejoicing. This national enthusiasm for the sea, the curiosity and uncertainty for what it held in store, spread from the Portuguese to their adjoining neighbours, the Spaniards, and they entered upon a career of maritime enterprise. Naturally, it was not long before the maritime interests of these two nations clashed, just as two and a half centuries later the maritime interests of England and Holland came into collision. In the case of Spain and Portugal, it was in relation to their respective rights of discovery and commerce on the African coast; but both nations were wise enough to adjust the differences by an article in the Treaty of 1479, by which it was settled that the right of traffic and of discovery on the western coast of Africa should be exclusively reserved to the Portuguese, who in their turn should resign all claims on the Canaries to the Crown of Castille. The effect of this was to drive

the Spaniards into the Western ocean, for no other path for naval adventure was left them. The discoveries which followed still further drew the nation to the sea; the excitable and speculative character of this Latin people was unable to withstand intoxication at their wonderful success. Instead of the discoveries becoming a source of strength to them, their colonial possessions were the cause of their undoing; the people of Spain and of Portugal failed to understand that what had been won by the sea must be held by it. The spirit of avarice was strong among the peoples of these two countries at this period, and in their anxiety to derive immediate reward for their enterprise, hardihood, and courage, they neglected to make good the foundations upon which their success had been built. Instead of solidifying their colonial empires by spending a proportion of the tremendous wealth their oversea possessions were bringing them in upon their navies, the only means by which they could keep these maritime empires intact, they entered upon careers of riotous luxury, which undermined those very qualities which, fostered by adversity, had won for them such large portions of the earth's surface; so that by the time their wealth had made the two hardier, and as yet unspoilt, sea-powers of England and Holland envious of their riches, they were unable to hold what they had won. The poorer a people's possessions are, the more elaborate are the means taken for protecting their all; the more prosperous a people become, the more careless they appear in the security of these riches. A poor nation is more generous in its expenditure on national defence, in proportion to the amount at stake, than is the case of a wealthy nation; the latter is found to be parsimonious.

The sea-power of Carthage dwindled as her people increased in wealth; the same phenomenon is witnessed in the case of the Roman Empire; Venice only ceased to be a great maritime power when her people were satiated with riches; Portugal and Spain ceased to be sea-powers when at the zenith of their financial prosperity. As the energies of a nation are concentrated upon the acquisition of wealth,

their character undergoes a change, and they become effeminate; it is then impossible to find rulers, especially in a democratically governed country, not animated by the same sentiments; hence the question of the country's defence is nobody's business. The connection between security from attack and invasion and of national prosperity and wealth is lost sight of until the mental and physical qualities necessary for defence have been killed.

The sea-power of Holland deteriorated in proportion to the spread of democracy, and as the people devoted their attention more and more to the acquisition of personal wealth, so did their interest in sea-power slacken. Sea-power is based upon a strong, efficient, and highly disciplined navy; therefore its most powerful solvent is democracy; for whilst sea-power is founded upon discipline, democracy is founded on the negation of discipline; where all want to command, none are to be found to obey. The democratic politicians of Holland believed that wealth was synonymous with strength. In territorial wars the employment of mercenaries is the last resort of a decadent people; in naval war it is open surrender of sea-power. By 1652 prosperity was general throughout Holland; everybody was making money in commerce and trade; the least lucrative calling was that of the navy and the army; and those who, for patriotic motives or for the love of glory and adventure, did serve in the defence services of their country, were looked down upon by their more prosperous countrymen. So obsessed had the whole nation become with the importance of their wealth, that it seemed unthinkable to them that any nation could defeat them. They relied upon their untold wealth to purchase them warships and mercenaries; but they quickly discovered that warships, unless manned by patriotic sailors, are useless; and they were to learn by the loss of sea-power that money is not the sinews of war, unless it be used in that capacity during peace. Machiavelli observes money is not the sinews of war. Plenty of money and treasure, instead of securing a State, often exposes it to great danger, and

sometimes to ruin, by tempting others to invade it. Therefore nothing can be more erroneous and absurd than the common saying "Money is the sinews of war."[1] But money, judiciously expended in time of peace upon the defences of a country, may so strengthen the sinews of war, that when war does break out the country is secure in its defence. This lesson Holland discovered too late, and she, like Portugal and Spain before her, learnt it at the cost of her sea-power.

The sudden determination to have, and the rapid rise of modern German sea-power, has a remarkable precedent in that of Rome. In neither case would success have been achieved had not the nation been behind the Governments.

It has already been shown that the Romans, recognising their own impotency against Carthage whilst the latter held the command of the sea, determined to build and man a navy to contest and wrest this from their enemy; and we know with what success. The rise of the Roman sea-power was rapid. Here we have a most conspicuous proof of that bold and daring spirit which appears to have animated in its youth each nation that has risen to sea-power. The earnestness with which Germany has entered upon a huge naval policy within the past decade, and the assurance of an expenditure of over twenty millions annually for several years to come, is evidence that the nation is animated with the spirit of sea-power. The question as to whether or not Germany will overcome the inherent difficulties which must always confront a territorial nation aspiring to competition with a maritime people for the command of the sea, is one which the future can alone answer, and must largely depend upon the spirit which animates the nation likely to be the probable competitor. The parallel of Rome and Germany will not justly extend to this, for the naval actions between the ancients in the calm and sheltered waters of the Mediterranean close to the shore, did not call for the qualities of seamanship that the modern naval action requires.

The sudden development of the sea-power of Germany,

[1] Machiavelli, *First Decade of Livius*, book ii. chap. x.

like that of Rome, could never have occurred in a democracy like that of Great Britain or in republics like the United States of America or France, and the reason for this is well explained by a German writer. "In Germany we hold a strong independent Government, assisted by a democratic Parliament, to be a better scheme than the continual change of party rule customary in England." The people initiate nothing; they quite rightly expect the Government, placed there by themselves, to do that; if that Government is strong, it is always able to secure the patriotic support of the nation; but party governments are rarely strong, and are therefore unable to take revolutionary measures where large expenditure is involved.

All sea-powers that we know of were created by autocratic or personal government. Democratic government has never proved successful in external action; even the Roman democracy provided for a dictatorship in case of any emergency. The calmness and determination of the German nation in bearing a heavy burden of expenditure, and in supporting the policy of a strong independent Government, is proof of the superiority of such a form of administration for the expansion of sea-power.

The British people must remember that their sea-power, and through it their empire, was not the creation of a democracy; and this form of government, which has grown more pronounced during a long naval peace, has yet to be proved during war; other maritime peoples similarly governed have been swept from the seas. A prolonged peace must, in the nature of things, reduce the efficiency of the military arms of a nation, and this is more especially the case with a maritime people of an insular country, for, being removed from the immediate vicinity of their probable enemy, they are lulled into false security, and the popular interest in the national defence gradually lessens. The longer the peace, and the more prosperous the people become, so then do we find that other interests grow more absorbing, until a firm conviction in the impossibility of war pervades the nation, or a fond belief that the traditions

of the past will be upheld by a service long starved into insignificance by national neglect.

Within recent years there have been many signs of growing national indifference in the sea-power of Great Britain. There is not to-day that lively interest on the part of the people in the doings of the navy and in the Government's naval policy that was noticeable even twenty years ago. Throughout the last century, and in fact until the last year or two, the nation kept a most jealous eye on any reduction in the naval vote, of the building programme, the strategic distribution of the fleets, or any policy which told directly or indirectly upon the efficiency of the sea-power of the British Empire.

That the nation is losing its grasp over its first and only line of defence is evident from the indifference which it displayed at two vital changes which have occurred during the last two years—changes in naval policy which indicate a deplorable want of foresight on the part of those responsible for British sea-power, and also tacit acknowledgment of its growing inferiority. The Mediterranean has always indicated the reigning sea-power by the strength of the fleet stationed therein; bottle-necked at both ends, its absolute command is of vital importance to the British Empire. Eight years ago it was considered that the safe minimum naval strength for this command was fourteen battleships to Italy's six and Austria's one. In 1910, however, the British fleet was reduced to six; whereas Austria increased her naval strength to six, so that to-day we find Germany's allies, Italy and Austria, outnumber the British naval strength in the Mediterranean by two battleships to one. When we come to consider that the command of the important trade routes passing through the Mediterranean falling into the hands of an enemy would bring untold disaster and misery upon the forty-five millions of Great Britain's inhabitants, it is indeed indicative of decaying interest on the part of the nation in its sea-power that allowed such a retrogressive step in naval policy to pass unchallenged. A long naval peace, during

which period, however, at least three silent wars have been waged, and in which Great Britain's sea-power triumphed, has made the British democracy forget that their national security, their very economic existence, depends upon every link in the chain of their sea-power being kept intact; they will awaken to this fact when face to face with a naval combination as powerful in number of ships and number of men as themselves; it may then be too late to strengthen one of the weakened links.

It was Great Britain's absolute command of the sea during the Anglo-Boer War of 1899–1902 that assured her success in that war, and it may with truth be said that the Boer Republics fell on the high seas, and that the British navy was the saviour of South Africa. It was by the silent working of sea-power that Pretoria and Bloemfontein were taken; and during the earlier part of the nineteenth century the nation, then closely in touch with the sea and the service which had harnessed it, would have more readily understood this fact: but to-day it is only the echoes of the guns that were fired outside of the Boer capitals that are heard—the means by which those guns were placed there are either forgotten or were never thought of. So, too, should the nation have remembered, before allowing Great Britain's peace command of the Mediterranean to pass into the hands of Germany's allies, that the construction of the Suez Canal had strengthened our hold upon India and our other Eastern possessions, and that this portion of the empire must be held via the Mediterranean.

Further evidence of the diminishing interest of the British nation in sea-power was given as recently as the middle of 1911, in the ratification of the Declaration of London, and the creation of an International Prize Court. When a nation considers the effects of a treaty in time of peace as paramount to its effects in time of war, then the martial spirit of the people must be on the decline. It has been said that the British Government were influenced in agreeing to the establishment of an International Prize Court, by the experience of the neutrals, and especially

that of the British merchant ships, during the Russo-Japanese War. Russia at that time claimed many rights contrary to international law, declaring foodstuffs to be contraband, asserting the right to convert merchant ships into men-of-war upon the high seas, contrary to the provisions of the Declaration of Paris of 1856. Great Britain surrendered a most efficient weapon in sea-power when she agreed to the abolition of privateering at the Convention of Paris, but in doing so, she at the same time handicapped her future enemies to a greater extent than she herself was handicapped. Under the new treaty privateering is now left open to be re-established. Germany, or any other naval power with which Great Britain may be at war, will be able to authorise the sudden transformation outside her own ports of a mercantile vessel, by the production of paint and bunting, into a ship of war. Prior to this transformation, this very ship may have claimed to have been only a merchantman, entitled as such to neutral hospitality; under this treaty we can well understand a merchantman, flying a neutral flag, yet the property of a power at war with Great Britain, taking the hospitality of a British port, refitting there, and then, proceeding a few miles to sea, being transformed into a warship and preying upon the very merchantmen she had a few days before left in harbour.

The indifference of the British nation at this treaty was all the more marked by the fact that several responsible bodies endeavoured, without success, to arouse national interest in it. The Declaration was considered, before ratification, by a special committee of the London Chamber of Commerce, and the report of the committee, recommending that the treaty should not be ratified in its existing form, or be made effective by the Naval Prize Bill, was adopted almost unanimously. The reasons given by the committee were: "(*a*) That the effect of the Declaration is to alter the law of nations, as hitherto maintained, in a manner entirely unprecedented, and to expose to capture or deliberate destruction food-supplies borne to any port of Great Britain in neutral vessels; (*b*) that the absence of any

provision in the Declaration for preventing the conversion of merchant vessels into commerce destroyers on the high seas, constitutes a valid reason for praying His Majesty's Government to decline to proceed with the ratification, or to proceed with the Naval Prize Bill; (*c*) that the admission of the principle of destruction of neutral prizes would be in the highest degree prejudicial to the interests of this country."

Unfortunately, the wording of the Declaration is so vague that various interpretations may be placed upon the meaning of some of the vital provisions. It is provided that conditional contraband is liable to capture, if it is shown to be destined for the use of the armed forces or of a government department of the enemy state, and that such destination is presumed if the goods are consigned to a "fortified place belonging to the enemy, or other place serving as base for the armed forces of the enemy." There is not one port or harbour in Great Britain that, in the event of war, would not be considered as coming under the provisions of this article; and as for the ports of the over-sea portions of the empire, it would be open to the commander of a hostile cruiser to interpret the vicinity of a troop of volunteers, and a battery of field-guns, as meaning a "fortified place belonging to the enemy." Whether a place, not itself of naval or military equipment, serves as a base for the armed forces of the enemy cannot be a matter of common knowledge. A neutral might, in absolute good faith, despatch his vessel to some particular port in the British Empire, and might find out that under this treaty it was a hostile destination, and, although there had been no means of him discovering this fact, his cargo is made contraband. The great disadvantage that Great Britain has placed herself under in the event of war, and the danger to the nation by the ratification of the Declaration of London, is shown by the German criticism of it. The *Hamburger Nachrichten* of 13th June 1911 contained a leading article on the "Declaration," in which it says: "In the first place stands the question of the necessity for exterior food-supplies, and so far as that is concerned, our position is much more

favourable than that of Great Britain, whose own production of food-supplies, in comparison with the needs of her population, is very small. A temporary disturbance (even if only partial) in the working of the oversea transport of food-supplies would bring about the severest disturbance and crisis in Great Britain, and not only in the direction of raising the price of food commodities, but also a financial overthrow and collapse. . . . England carried out her last important sea battle one hundred years ago, and since then she has become vulnerable, and it is this which accounts for the nervousness of the entire English people. The position of Germany, which is yearly becoming less vulnerable, is more and more apparent to Englishmen. . . . If in this respect we are more fortunate than England, on the other hand, geographically, we are not so well favoured. The formation of the North Sea is one naturally favouring a blockade of German sea traffic, and even for what the English call 'the high sea blockade,' by the closing up of the arm of the sea between Scotland and Norway; this is what they call 'sealing the North Sea.' By the Declaration of London such a blockade may not be carried out, as by Article 1 it is provided that a blockade must not extend beyond the ports and coasts belonging to, or occupied by the enemy, and Article 18 says the blockade forces must not bar access to neutral ports or coasts. In the agitation carried on in England against the Declaration, great stress has been laid on this point. In Germany we have received these decisions with exceptional pleasure. . . . Having regard to everything in the case of a sea war, and should the enemy be of a mind to carry out a great fight for the mastery of the sea, the provisions of the Declaration of London for the traffic of neutral ships, carrying food-products to neutral neighbouring harbours, would only be of minor importance to us. Germany would ever, therefore, have to be in the position to rely on its own food-production, for in a great European war, where our continental neighbours, whether as friends or enemies, would be entangled, any help, as far as the

traffic of food-commodities is concerned, could not be relied upon."

In the event of a naval war in Europe, it is highly improbable that Holland and Belgium will be involved, and certainly if Germany be one of the belligerents it would be to her advantage under this treaty to see that they remained as neutrals; she would care very little then whether foodstuffs and raw material were absolute or conditional contraband. If at war with England, then she would suffer the inconvenience of having her ports blockaded by the British fleet; it would then mean that a larger proportion of her supplies would go through the neutral ports of Holland and Belgium. The ports of Rotterdam and Antwerp are to-day the gateways through which great supplies of all kinds are imported into Germany; at these ports they are transhipped into lighters and conveyed by way of the Rhine and other rivers into the heart of Germany. In time of war, therefore, we should see neutral ships carrying supplies of all kinds into the neutral ports of Holland and Belgium, and, provided England succeeded in keeping the command of the sea, British merchant vessels will be employed in supplying the enemy. The Declaration of London was drawn up at a Conference of the chief Naval Powers, which met in London between December 1908 and February 1909, with the object of coming to an agreement on the rules of prize in naval warfare. An agreement was arrived at, and following the precedent of the Declaration of Paris, 1856, a definite code was drawn up for the purposes of the International Prize Court to be established in accordance with one of the Conventions of the Hague Conference in 1907. Between the publication of the Declaration, together with the minutes of the Conference and the ratification by the passing of the Naval Prize Bill by the Imperial Parliament in June 1911, the proposals were the subject of intelligent discussion in Germany, which displayed national interest in their rapidly growing navy. On the other hand, the discussion throughout the British Empire on proposals which so vitally affected

British sea-power, was almost wholly restricted to a few naval and other authorities; from this quarter the most severe criticism was levelled at the British delegates for agreeing to conditions which it was contended meant "the surrender by treaty of the most vital element of our naval power, ability to hurt the enemy and defend ourselves." More serious than the provisions of the treaty itself was the apathy of the British nation in that which might, or might not, as far as they were concerned, wipe out traditions gloriously and hardly won, destroy their sea-power, and affect their very existence. It is just here that a section of the Press, not only of Great Britain, but also of the oversea dominions, are to blame, devoting columns and columns to sport or society news; rarely do they endeavour to enlighten their readers upon Imperial questions or the means by which the empire is kept together. To-day we have a medium by which the nation can be swayed and national enthusiasm upon any question aroused—a medium quite unknown when Great Britain first won her empire of the sea, and still in its infancy when she fought her last naval war. Through the medium of the Press, the old sea-sense of Great Britain may be resuscitated, just as the sea-sense has been kindled by the same means in Germany, and by that means giving that country the national backing without which sea-power cannot exist.

It has been seen how, in the cases of Phœnicia and the maritime states of Greece, sea-power, by a defect in policy, may react against itself with disastrous results. Sea-power, by giving an open highway to the nation, new lands to inhabit and exploit, and protecting the emigrant communities until they have grown strong, brings into being possible rival sea-powers or communities that may ally themselves with an enemy unless the national tie is kept intact. This, as has already been said, was one of the causes of the destruction of some of the sea-powers of the past, and Great Britain, as recently as 1812, had the inglorious experience of her emigrant communities seceding by force of arms, and to-day sees a nation that her sea-power planted

and protected in infancy, grown to just twice her own size. The growth of science, and with it the annihilation of time and space, enables the national spirit to be kept alive and should keep intact the national tie. To-day every part of the British Empire knows, within a few hours, the actions and very thoughts of every other part, and each part is able to participate in unison in all that makes for national advancement; the traversing of the sea is no longer a formidable undertaking, nor does it mean separation from national customs, habits, or institutions. The sea is no longer a barrier to national expansion, thanks to electricity, steam, and modern journalism; but there is the danger, due to a different environment, of the means by which the empire is secured being forgotten, and of an indifference to the vital importance to British national life of sea-power. One can quite well understand the grandsons of one of Trafalgar's heroes, being brought up on the plains of Canada, never perhaps having seen the sea, whilst being thrilled at reading the details of this glorious sea fight, failing to understand its import, just as we found many descendants of British and Dutch seamen fighting side by side in the Anglo-Boer War, who believed and still believe that South Africans could exist as an independent nation without the aid of sea-power. These people fail to understand that South Africa, like Australia and New Zealand, must remain the dependency of the reigning sea-power, or are allowed independence on sufferance of that sea-power, which is practically the same thing.

Although the naval policy of the German Empire is to a great extent independent of popular support, owing to the fact that the control of armaments is vested in the emperor, yet the Government, truly wise in its generation, has been most assiduous in its education of the people on the subject of sea-power. The heads of the State, from Bismarck down, have one after the other recognised—and here we see the value of continuity of policy impossible in a party-governed country—that if sea-power was to come to Germany, it must have whole-hearted national support. The effect of edu-

cating the people as to the relationship of sea-power, security, and prosperity, is given in the official organ of the Labour Party of Germany in these words : " That Germany be armed to the teeth, possessing a strong fleet, is of the utmost importance to the working man."

The British empire of the seas cannot stand unless the sea-sense of the nation is kept alive and is rekindled in those offshoots, in whom it may have been killed by environment. This, then, calls for a vigorous programme of education on the subject of sea-power by the State authorities and by the Press of the empire.

Several of the oversea dominions of the empire have reached that stage at which the national character, with all its aspirations and ideals, is observed. The wise parentage of the mother country, with the means at her disposal unknown a century ago, when the American colonies revolted, will so direct the national character of her dominions, each formed upon different lines, that the growth of these differing national characters will add to the strength of the empire. The peculiar national character which the widely divergent parts of the empire must develop, due to difference of environment, need no more be antagonistic to any other part or to the mother country than is the case of a family of sons who, at an early age, have gone into the world and developed characters upon different lines : any danger threatening the honour or the entity of the family brings them together. Providing each part of the empire recognises the vital need for British sea-power being the permanent supreme sea-power of the world, and the obsession by this fact becomes a national trait, then indeed will the sea-sense that has actuated the people of Great Britain, and made the nation what it is, spread throughout the empire.

CHAPTER XI

SEA-POWER AND COMMERCE

From the trading barges of the early Egyptians and Phœnicians to the super-Dreadnoughts of to-day is a far cry; yet the latter is but the natural sequence of the former. Ships of war, military fleets, and then navies were brought into being for the protection of the peaceful merchantman and for the security of sea-borne commerce.

The merchant ships of the early Egyptians were often used for the purpose of transporting troops into the enemy's country; these vessels were commodious and adapted for lengthy coasting voyages. Here we find the first link in the chain of evolution towards a fighting navy. The Egyptians were essentially a commercial people; whilst making lengthy voyages to foreign lands in search of trade, they did not annex territory, but rather exacted tribute.

During the reign of Thothmes III., about 1550–1490 B.C., commerce was, in a primitive way, organised, custom-houses first created, and government consuls or agents placed in foreign countries. From about this date maritime commerce or sea-borne trade progressed; but commerce, in the more extended interpretation of the word, was probably due to the inventive genius of the Phœnicians. They were the pioneers of sea-borne commerce as well as of sea-power, and they were fortunate enough to find the ocean comparatively free, and at first had no enemies or competition on the sea. Like the Egyptians, the Phœnicians were not a conquering people; their intercourse with the natives beyond the sea was purely commercial and not political; hence they but slightly expanded their territorial possessions. Their surplus population founded new colonies, which in turn became trading centres and marts, but such

were from the beginning independent politically of the parent state. As these hardy mariners pushed further afield, the risks of attack from hostile savages became greater; hence their merchant ships carried a proportion of armed men. Then as Tyre and Sidon increased in importance, and became the centres upon which a growing stream of richly laden merchantmen converged, the temptation for piracy drew the more lawless spirits into a pursuit which promised them great riches at the cost of little labour. Then it was that regular armed vessels were attached to the fleets of merchant ships and the system of convoys came into general use. Starting as poor fishermen, their mastery of the sea brought with it undreamt-of wealth; not alone did it give them a highway to new lands which yielded them treasure, but it created and stimulated the industries of their own country, for they had now found inexhaustible markets for their manufactures. Phœnicia, having started her commercial career without any competitors on sea or land, failed to realise that her growing wealth must sooner or later draw upon her the envy of neighbours; then, too, the policy of planting colonies as independent states and failing to keep alive the national spirit, made these maritime colonies competitors, and later, active enemies. Intercourse being slow, it is but natural that these colonies quickly became foreign to the parent country and to each other. Then again, the Phœnicians, becoming obsessed with the desire for wealth, failed to recognise the need for a defensive organisation keeping pace with the growing responsibilities of their commerce; therefore, when the invasion of the Babylonians took place in 587 B.C., Phœnicia was unprepared with either naval or land defence. As a maritime people, they had failed to keep a navy in proportion to their sea-borne commerce or their maritime obligations.

In the earlier stages of Carthaginian commerce, we find that the same error was not made, for Carthage, as a body politic, was more united than Phœnicia, and to prevent their outposts from developing into independent

nations, they kept up a healthy system of constant intercourse. The central government likewise kept the control of the military services in its own hands. The colonies paid tribute to the parent state, with which was maintained not only an immense mercantile marine, but a navy in proportion to the requirements of the growing sea-borne trade. As the commerce of Carthage grew in volume and importance, the value of islands as harbours of refuge for their mercantile marine became apparent; hence we see that Sardinia, the Balearic Isles, Corsica, and Malta were occupied. Whilst the navy of Carthage was manned by its own citizens, the sea-borne commerce prospered and was secured; but here again we see the greed for personal wealth destroying the nation. As the citizens gradually fell away from the military services, attracted by the search for rapid wealth or deteriorated by its acquisition and a life of luxury, so were their places filled by mercenaries, and the navy and army gradually decayed for the lack of the motive power of patriotism, until Carthage fell before the rising power of Rome.

The overthrow of Carthage placed practically the whole of the sea-borne commerce of the then known world in the hands of Rome; the destruction of the Carthaginian sea-power left the Romans without a rival on the ocean, but this fact did not lead them into false security. The first duty of Augustus was to extirpate the numerous pirates who preyed upon the commerce passing up and down the Mediterranean; then for the more adequate protection of this continual stream of sea-borne traffic, he stationed a permanent fleet at Ravenna, on the Adriatic, and a second fleet at Misenum, in the Bay of Naples; yet another was stationed at Fréjus, on the coast of Provence, and a fleet of forty vessels was commissioned to guard the Euxine. In the Red Sea a small squadron was stationed at Myos-hormos, a port of Egypt. This squadron acted as a convoy to the fleet of 120 merchantmen which sailed annually to Ceylon and the coast of Malabar; but as at this time Arab sea-power had not made itself felt in the Indian Ocean, the services of the naval convoy were only required

for defence against pirates. Here we discover the earliest signs of the sea-borne commerce with the East growing up under the protection of a navy. The Romans, being devoid of the true sea-sense of a maritime people, were content to hold the command of the sea solely in its military sense; the commercial fleets were the property of subjects of Rome, and the sailors that manned these fleets acknowledged the sovereignty of that empire. In the case of the Eastern fleet, Roman soldiers manned the naval squadron, but the merchant ships were officered and manned mostly by Arabs. The merchant service is the backbone of the sea-power of a country; it is the natural reserve for the fighting service. As the proportion of foreigners employed in the mercantile marine increases, so then does the sea-power of a country suffer in efficiency. In the case of Rome, when she lost her hold of the Red Sea, the sea-power of the East was grasped by her former subjects, the Arabs, and for centuries, down to the year 1497, the trade with the East, including the command of the Red Sea and the Indian Ocean, was held by the Arabs, until it was wrested from them by the Portuguese. So long had the Mohammedan merchants of Calicut held the monopoly of the carrying trade between the East and West, that they considered their vessels immune from attack, and had long ceased to keep a navy in proportion to their mercantile marine. Secure in the belief that they commanded the only route to India, when danger came via the Cape of Good Hope, the Arab sea-power was unable to withstand it; yet another power was to be swept from the sea through the neglect of the fundamental principle that a mercantile marine carries with it the responsibility of naval defence in proportion to the value of the sea-borne commerce. One of the incentives for the search for the Cape of Good Hope route to India was the known wealth of the Arab traders of the Indian Ocean, and in seeking this route, as in their other explorations, the leaders of the Portuguese nation were following a truly national policy, for their aims were chiefly commercial. The Italian Republics

shared with the Arab traders this great and growing trade with the East; it was into the hands of the Italian merchants that the merchandise filtered after leaving the Mohammedan merchant, and was by them distributed, to their great profit, throughout Europe. The discovery by Bartholomew Diaz, in 1487, of the Cape of Good Hope route was not only a death-blow to the Mohammedan merchant and the Arab sea-power, but was likewise a serious blow to the prosperity of the Italian Republics, for it entirely shifted the equipoise of sea-borne commerce. Venice and Genoa were switched off the trade routes, and then started on the down grade as powers. The Mediterranean, the cradle of sea-power, was henceforth to remain an inland lake for many centuries. With the opening up of the Indian trade route by Vasco da Gama, Cabral, and de Albuquerque, Lisbon supplanted Venice as the principal receiving-point of the West; it became a cosmopolitan city which the ships of all nations frequented. The overland routes were abandoned and the course of Eastern trade was radically changed; but the opening up of a new trade route, and with it the discovery of new lands, markets, and commodities, had an indirect influence upon sea-power, for the valuable cargoes which the Portuguese fleets brought to Europe from the East Indies, and the wealth with which the sales of them filled the treasury, lowered the price of Eastern commodities in the Italian marts, and created a spirit for distant navigation and commerce among the rising maritime states in the north of Europe. One of the numerous errors in policy made by the Portuguese, and which tended to hasten the loss of their sea-power, was the transportation of the wealth of the Indies and Brazil to their own capital city. Lisbon was proclaimed the sole European port to which their ships might proceed, and at which cargoes might be discharged, a short-sighted policy which soon brought disaster in its train, for whoever wished to purchase had to proceed to Lisbon, and foreign shipping had to be used to carry the merchandise from there. The Dutch merchants very quickly discovered that if they must go to Lisbon,

they might just as well, with bigger profits in view, sail to India and Brazil. When, therefore, Portugal was annexed by Spain in 1580, the Dutch turned their vessels, long accustomed to the navigation of the North Sea, into the Southern waters. By this time the Dutch had acquired a considerable navy; its efficiency had grown in its protection of the fishing fleets against the united fleets of England and France; Antwerp had developed into the capital of the North, and its merchants had long superseded those of Venice as the distributing agents of Europe. The mercantile marine of this city at this time numbered over two thousand sea-going craft. The absorption of Portugal by the ancient enemy of Holland, together with the closing to Dutch shipping by Spain of her own and the Portuguese ports, was good enough and amply sufficient pretext for the naval and mercantile fleets of the Netherlands to enter into competition with those of Spain and Portugal and appropriate to themselves the commerce of the East.

We have now arrived at one of the most remarkable illustrations that history provides of the important bearing sea-power has upon the commercial prosperity and advancement of a people, and side by side with this illustration we have another one, just as forcible, of how the neglect or disregard for a principle on the part of a state brings with it retribution.

At the time of the annexation of Portugal by Spain, the manufactories of Holland had grown to an important position; military armaments, glass, wire, paints, silk and woollen yarn, carpets, cloths, and numerous other commodities were manufactured and sent to the various European centres. Now the raw material for most, if not all, of their manufactures had to be purchased in Lisbon; when, therefore, Spain herself, ignorant of the potentialities of sea-power, endeavoured to flaunt one of its first principles by closing to a growing commercial and manufacturing nation like Holland the markets for her raw material, she was but giving an impetus to that nation which acted disastrously to herself. The loss of the Armada in 1588

was fortunate for Holland, for Spain was now unable to defend the widely scattered possessions of Portugal and herself, possessions which produced the raw materials so essential for the commercial life of Holland. By the end of the sixteenth century the trade of the Orient had passed into the hands of the Dutch, and Spain and Portugal had entered on the down grade. Instead of being bereft of the raw products to supply her numerous manufactories and markets, as Spain had intended, Holland shortly found herself in possession of an immense trade, from the profits of which she was able to build a formidable navy for the protection of her great mercantile marine, the size of which may be gathered from the statement that by the end of the sixteenth century 400 ships entered the harbour of Amsterdam daily, and at that time more vessels were built in the shipyards of Holland than in all the shipyards of Europe besides.

Of all the sea-powers that the world has seen, the Dutch must, not even excepting the British, stand out pre-eminently as embodying all that the term is meant to convey. It was not solely the naval command of the seas that their seamen sought, but as traders they recognised the necessity of the efficient combination of the two qualities of fighting and trading, and we have this combination demonstrated more efficiently and more highly developed in Dutch sea-power than in that of any other nation. It was the Dutch instinct for efficiency that brought into being the Dutch East India Company; it was felt that a Board of Directors would have better control over the commercial branch of their sea-power than paid officials, with no direct interest at stake. Within the first thirteen years of its existence, this company owned 800 armed vessels, was paying annual dividends of from 20 to 50 per cent., and in those few years had captured 550 Spanish and Portuguese warships and merchantmen of great value. The aim of Dutch sea-power was purely commercial; their territorial acquisitions were never made from a sense of military importance. Each colony that was planted was

simply a community of traders. The Dutch recognised that the defence of their vast commerce rested upon the sea; therefore their squadrons were to be found on the coasts of Africa, spread over the Indian Ocean and along the American coasts. The East India Company significantly preferred to place their principal establishments on islands rather than on the mainland, as being more under the protection of their fleets. For more than a century Dutch commerce, created and supported by sea-power, flourished; once this support was withdrawn, the commercial prosperity disappeared. During the seventeenth century, at the time when Dutch sea-power was at its zenith, the financial prosperity of Holland was such that her bankers negotiated almost all the loans issued by France and England, the interest upon which was between 4 and 6 per cent.

Until the end of the sixteenth century, England had been chiefly supplied with raw material and manufactured articles by the Venetians; her own mercantile marine at this time was a negligible quantity; internal strife and war with France from 1522 to 1564 had meant enforced neglect of her commerce, and it was not until the defeat of the Spanish Armada that Englishmen began to move beyond their own seas. The importations into England from Venice, Holland, and Portugal had created wants before unknown; with the closing of these markets of supply other means were cast about for, for supplying commodities that had grown to be necessities. England was also beginning to feel the effects of overpopulation and incapacity to satisfy the needs of the people. "Peopled gradually from England by the necessitous and the indigent, who at home increased neither wealth nor populousness, the colonies, which were planted along that tract (North American coast) have promoted the navigation, encouraged the industry, and even perhaps multiplied the inhabitants of their mother country."[1] Spain was ample and very practical evidence to England of the riches to be obtained by sailing the seas. The husbandmen of England did not

[1] Hume, *History*, vol. iv. p. 519.

despise the virgin soil of North America. It was fortunate for the future of the British Empire that the earliest immigrants from England were guided by the maxim laid down by Lord Bacon: "A virgin soil is the best; mines of gold and silver corrupt the character, and the wealth drawn from them, however great, can be only of short duration. Honest toil and continual industry are in the end the greatest sources of fortune." [1] The plains of North America were well adapted for farming, whilst the long coastline contained numerous havens for shipping. Whilst the attractions of South America to the Spaniards and Portuguese were exhaustive, those to the English in North America were constructive, and were to be one of the foundations upon which was to be built Great Britain's commercial supremacy. Spain and Portugal had over a century and a half start of Great Britain in maritime expeditions, whilst both Holland and France were well in advance of her. But when England did start to build up her mercantile marine, the foundations of her sea-power were laid upon sound foundations; the thorough knowledge of seamanship obtained in numerous adventurous exploits. Englishmen had for long enlisted under other flags and navigated other's ships, and their reputation as sailors was already made; therefore their progress on the sea was all the more sure. We have seen that the three great naval wars between the English and the Dutch, beginning in 1652, 1665, and 1672, were struggles for the command of the sea, and this command of the sea was required by each for the uninterrupted passage of its sea-borne commerce. The naval wars between these two great commercial peoples were actuated by trade rivalry; both nations having large commerce, each was forced to protect its own in the first instance, and then, having secured the safety of its own sea-borne commerce, to fall upon, interrupt, and destroy that of the enemy, as being part of the nation most readily got at.

As a result of their experience in the first war with England, the Dutch throughout the second war restricted

[1] *Essay on Plantations.*

their operations to a direct struggle for the command of the sea, and to leave themselves the more free for this, abandoned their commerce for the time ; the protection of commerce dropped out of the plan of operations. During this war, there were captures of merchant ships on both sides, but, unlike the first war, no battle resulted from an endeavour to protect them. Of the seven battles of the first war, four came about out of the necessity of protecting commerce. During the second war, not an outward-bound convoy left the ports of Holland. The suffering to the Dutch nation of the interruption of her commerce was apparent, and on the outbreak of the third war England was again ready to strike her enemy in her most vulnerable part, and, taking advantage of her position as lying across the stream of Dutch commerce, fell upon it as opportunities offered ; though on the outbreak of this war Holland again prohibited sea-borne commerce, and suffered at home in consequence. Her commerce had long outgrown its naval protection, and being considerably greater than that of England, if an attempt had to be made to protect it, then it meant the dispersing of the ships of war to a dangerous extent ; the danger of this had been discovered during the first war.

During the twenty-two years 1666–88, English merchant shipping had doubled itself ; therefore during the third war with the Dutch, England found herself in a somewhat similar position to that of her enemy in the first war, as regards dispersing her naval force in the attempted protection of her commerce ; and the Dutch, by the prohibition of their own commerce, were able to make the English losses proportionately the greater. Unlike the growth of the commerce of preceding sea-powers, the vast commerce of Great Britain, like the empire itself, is due wholly to successful war. Less than a century ago, to be precise, the year 1815, the total exports and imports of the United Kingdom were about £96,000,000, whereas to-day the Union of South Africa, the youngest dominion, has an annual trade of £92,826,000.

During the Spanish War and War of the Austrian Succession, British commerce increased by 15·6 per cent.; during the Seven Years' War by 32·9 per cent., and during the wars of the French Revolution and Empire by 118·2 per cent. Whilst it is true that there was a set back to British commerce during the American War of Independence to the extent of 27·3, yet when we come to consider the tremendous strain placed upon the national resources, we marvel that the shrinkage was so small. Opposed to the combination of the three greatest sea-powers of the age, the "armed neutrality" of all the other navies of Europe, an expensive land war with her colonists and with the most formidable military races of India, trouble in Ireland and a depleted treasury;—compare this shrinkage of commerce under such conditions with the penalty the United States had to pay for unsuccessful naval war in the Anglo-American War of 1812–14. Here we find that the United States' trade of fifty millions sterling fell to less than £4,400,000. What greater proof is required of the efficiency and superiority of British sea-power and its tremendous bearing upon commerce and national prosperity than that given during the wars of the French Revolution and Empire, when England was opposed to all the navies of Europe. From 1792 to 1800, or in eight years, British trade increased by 65 per cent., and the loss of sea-borne commerce by capture was under $2\frac{1}{2}$ per cent. of the total volume, and from 1793 to 1815 the total number of British merchant ships captured was 10,871, of 1,375,000 tonnage. But let us remember that the conditions under which Great Britain was able to carry on war a century ago were entirely different from the conditions holding to-day. Then she was able to produce almost all the food that her population of eighteen millions required: to-day the interruption of the trade routes to the British Isles for a period of two months would bring the greater portion of forty-five millions of her people to the brink of starvation. At that time the British navy was stronger than the combined navies of the world, but since the last naval war in which Great Britain

was involved new factors have been introduced, factors of far-reaching effect. Of the 12,791,381 tons of British mercantile shipping, 10,340,589 tons are propelled by steam; the first effect of a naval war will be the disappearance, either by laying up, capture, or transfer to a neutral flag, of the 2,450,792 of sailing tonnage. As Great Britain has practically a monopoly of the coaling-stations along the main trade routes, commerce destroying must be confined to closely defined areas; hence the problem of commerce protection is considerably simplified. The electric cable, and even more important still, wireless telegraphy, are factors which are more in favour of commerce protection than commerce destruction; a hostile cruiser can, under present conditions, be accurately located and tracked down before it is able to do any considerable damage. The naval war of the future in which Great Britain is involved must naturally see certain radical changes in the conduct of commerce. The mines of South Africa, a British possession, are at the present time producing one-third of the world's gold output, or about £33,000,000 sterling per annum; this is exported almost weekly to Europe. It is not to be supposed that such a valuable cargo would be risked on the high seas in time of war, and the question arises as to whether it would not be economically sound to have this minted in the country of origin and held as reserve against notes issued to the owners oversea.

In the year 1810–11, the total number of seamen employed in the Royal Navy, then at war, was 113,600, as against 140,000 merchant seamen, employed throughout the empire. The number of officers and men voted for the navy for 1910–11 is 131,000, and the number of merchant seamen in the empire is 270,791; of this number 38,084 are foreigners and 44,367 Lascars. Upon the outbreak of war it is reasonable to suppose that war strength will be completed without any undue disorganisation of commerce; the large sailing tonnage and the slower steam craft that will be perforce laid up will provide a number of seamen for the navy. In the wars of the past, it has been customary

for the navy, on the outbreak of war, to draw upon the merchant service. Admiral Sir T. Byam Martin, in giving evidence before a Parliamentary Committee some fifty years ago, in reference to the rapid increase of the navy in 1793 stated: "It was the merchant service that enabled us to man some sixty ships of the line and double that number of frigates and smaller vessels," and added that we had been able to bring promptly together about 35,000 or 40,000 men of the mercantile marine; this was 46 per cent. of the total number of seamen in the empire. Under the altered conditions of naval warfare of the future, with the greater facilities for the protection of British commerce, it is not to be supposed that anything like that proportion of merchant seamen will be available for war service, except by seriously affecting sea-borne commerce.

Twenty-one years ago the late Vice-Admiral Sir George Tryon [1] brought forward the important question of national insurance. He pointed out that there are certain risks arising from the effects of a sudden advance of insurance rates; and this is true. Underwriters, for lack of data to guide them in the assessment of risks, will cover themselves by fixing premiums out of all proportion to the risks. Now, where the premium is high, the tendency will be for owners to transfer to a neutral flag. The abrogation of the Declaration of Paris by the Declaration of London must have the effect of increasing insurance premiums, for under the last treaty privateering, in a slightly disguised form, is sanctioned. The probable effect of this upon insurance may be gauged from what happened during the American Civil War; the *guerre de course* followed by the *Alabama*, a ten-knot vessel, and one or two other Confederate steamers, resulted in a very large proportion of the carrying trade of the United States passing into British hands, and these depredations caused insurance rates to be fixed at 6 per cent. for the Mediterranean and at 5 per cent. in the North of Europe and in the West Indies. That a more intelligent and reasonable view is taken to-day of the security of

[1] *United Service Magazine*, Sept. 1890.

British commerce in time of naval war, is evident from the comparison between the *Trent* affair in 1861, when premiums advanced to 5 per cent. and the Moroccan affair of to-day, when the premiums are from $\frac{1}{8}$ to $\frac{1}{2}$ per cent. Over the *Alabama* immense profits were realised from panic-stricken shippers, and again the same thing happened during the Franco-Prussian War; German ships in the Baltic were charged 5 per cent., and in a few cases as high as 10 per cent. On the other hand, only $1\frac{1}{2}$ per cent. was charged for French vessels; few vessels on either side were taken. In this speculative age, where every advantage is taken by the unscrupulous speculator of scares and panics, we may be quite sure that in spite of the severest penalties, rumours will be cleverly circulated of the sailing of commerce-destroyers, of naval actions disastrous to ourselves, and every advantage will be taken to "bull" or "bear" the insurance market. These rumours will have an evil effect on the temper of the people, and upon the morale of our seamen; and the only means that we can see by which this can be repressed is for the nation to take the insurance of its shipping and commerce into its own hands.

CHAPTER XII

THE COLONIES AND SEA-POWER

MANY of the inhabitants of his Majesty's possessions beyond the seas resent being termed colonists, and object to the country of their adoption being referred to as colonies; and yet there is nothing derogatory or even narrow in the term, but rather the contrary: the name stands as a testimonial to the courage and hardihood of their forefathers or themselves. The snobbishness of any such objection is all the more apparent when we seek for the definition of the name. The Latin term *colonia*, from which is derived the word "colony," means a possession in land, a landed estate, a farm. Webster defines the word as "a company or body of people" transplanted from their mother country to a remote province or country to cultivate and inhabit it, and remaining subject to the jurisdiction of the parent state. Johnson's Dictionary says, "a body of people drawn from the mother country to inhabit some distant place," and Littré's French Dictionary says a colony is "an establishment founded by a nation in a foreign country; possession of an European nation in another part of the world." The objection arises perhaps from the confusion of the terms colony and dependency; the latter is merely a possession entirely or almost entirely peopled by the aborigines. The oversea possessions of France and Portugal are dependencies as distinguished from colonies, just as Great Britain has, on the continent of Africa, both colonies and dependencies; but a colony is none the less dependent on the protection of the mother country than is a dependency, for just as both were brought into being by sea-power, so then must both rely upon it for defence and security. The oversea possessions

of Holland, Spain, and Portugal are secured by the sea-power of Great Britain and France, their own navies being hopelessly inadequate, even if combined, to assure the security of these possessions against any of the other first-class navies of the world.

The very nature of things forbids any power, not being a strong sea-power, from acquiring oversea possessions and retaining them as colonies. The dependencies of Portugal, Spain, Holland, and France were acquired at a time when each of these nations were prominent on the sea. Germany only obtained possession of oversea territory after she had entered upon a strong naval policy, and the same may be said of the United States of America ; but it is one thing to acquire oversea territory, and quite another thing to colonise that territory in the proper sense of the word—that is, to transplant thereto people from the parent state. The desirable immigrant wants security of tenure ; he wants to be satisfied that his new home is safe to remain an integral part of his homeland, that he and his descendants will enjoy all the privileges of his native country ; and he can only be sure of this if the nation possessing the colony to which he emigrates has a navy powerful enough to command the sea. Now, from this it is obvious that there can only be one colonising power in the world at one time —the power who for the time being commands the sea ; and so it is and so it has been from the dawn of history. We have seen how the islands of the Mediterranean have been owned by successive sea-powers, and how battledore and shuttlecock was played with the West Indies by the sea-powers of the seventeenth and eighteenth centuries. The true bearing of sea-power upon colonisation can only be correctly estimated by a close study of the rise and progress of the British colonial system ; history gives no parallel for this. The sea-power of Holland, a country which had all the promise that has been fulfilled in the case of Great Britain, did not last long enough for her to form an empire peopled by her own people beyond the seas. The success at the Cape of Good Hope of the Dutch settlers is evidence

of what might have happened had Dutch sea-power lasted long enough to have enabled Holland to have settled other possessions with the same stamp of men and women. The character of the Latin people is antagonistic to colonisation in the proper meaning of the term; they are quick to assimilate with the aborigines, and hence rapidly lose the best qualities of their race. It is quite impossible to find a pure colony of French or Spanish under their own flag, yet we find that the Anglo-Saxon and Teutonic races will keep pure for generations under the most adverse conditions.

The inhabitants of the Spanish-American states and of Brazil have developed into a people foreign to the people of Spain and Portugal, from whom they originally descended. The Latin race, unlike the Teutonic, does not lend itself to transplantation, and therefore had sea-power been given to them for a long period, colonisation, in the sense of the planting of offshoots from the parent stock, would not have occurred.

The Portuguese made a serious attempt to colonise Brazil in the year 1530—that is, they introduced the system that had previously been applied to the Azores and Madeira of assigning to certain noblemen tracts of country and investing them with absolute ownership over the land, its hereditaments, and aboriginal people. It was believed that the owners of these concessions would encourage emigration, but this was not the case; a few adventurers were placed on the land to exploit it at the hands of the natives, and thus Brazil lay fallow until the mines were discovered in 1691; then there was an influx of emigrants from Portugal. At the time Portuguese sea-power was on the decline, but fortunately for her she fell under the influence of England in 1703, and such possessions as she had succeeded in holding were secured by the sea-power of her ally. By the year 1822, Brazil had outgrown the parent state both in population and prosperity, and in that year the colony proclaimed itself an independent state, accepting the Crown Prince of Portugal, Dom Pedro, as emperor. The mother country was so involved with internal discord

that it was unable to offer any serious resistance to this act of secession; had Portugal been a sea-power at the time, the severance would not have taken place. The population of Brazil to-day is approximately eighteen millions, but of this number only one-third are white. The navy of Brazil has long since outclassed that of Portugal, and is the first instance in modern history of the sea-power of a colony exceeding that of the parent state. The history of the Portuguese colonisation of Brazil is repeated in the Spanish colonisation of Mexico and Peru. Whilst the sea-power of Spain held, she was able to retain her possessions; once it failed her, then these were either taken by her successor to the sea, or the possessions themselves grew sufficiently strong to take to themselves a separate existence as independent states.

The British colonial system, which is unprecedented in history, takes its start from the command of the sea gained with the defeat of the Spanish Armada. The British Empire, as we now know it, dates from the battle of Trafalgar, the result of which left Great Britain without a rival for the century which has followed. During that period of rest from naval war, the process of the colonisation of the lands beyond the seas yet connected by sea-power, took place. Australia, which at the time of Trafalgar had but a small settlement in New South Wales, rapidly developed. As the century progressed, six separate self-governing colonies were created on the island continent. The opening of the new century saw the federation of these separate colonies into one commonwealth, the population of which stands to-day at four and a half millions, enjoying a revenue equal to that of Holland, the erstwhile mistress of the seas. The neighbouring colony, New Zealand, only annexed in 1840, has, under the beneficent influence of sea-power, developed into a dominion with a population exceeding a million, with a revenue of almost double that of Denmark.

At the conclusion of our last naval war, the Cape of Good Hope was but a small Dutch settlement; to-day it is the legislative capital of the Union of South Africa, which has

a population of one and a quarter million of whites, sprung from the two greatest sea-powers history has to record, and a native population of over six millions ; this colony of Great Britain produces one-third of the gold produced in the world annually.

Canada, although occupied as far back as 1627, received its great impetus solely by reason of the supremacy of British sea-power, and the security of the maritime trade routes which that meant. This, by far the most important part of the oversea empire, has now a population exceeding that of Portugal, and the revenue of this British colony exceeds that of the ancient maritime power by over three millions.

So used are the Englishmen of the present generation to hear and read of the greatness of the British Empire, that they forget the means by which it has been brought into being, by which it is protected, and few of them realise how comparatively young it is. One-third of the British possessions have been acquired since 1884 ; from that year some two and three-quarter million square miles of territory have been either annexed or brought under British influence, and this has all happened through sea-power, the influence of which is as potent when silent as when in action.

Not one of the larger colonies but has had small wars. New Zealand suffered severely from her twelve years of warfare with the natives. At last they were conquered, and once peace reigned the colony progressed ; but the settlers could not possibly have conquered had it not been for the silent working of British sea-power, which alone guaranteed the secure passage of the British troops, any more than the Red River Expedition would have met with success had the command of the sea between Great Britain and Canada been in the hands of a hostile sea-power. The British conquest of Africa is one of the most emphatic testimonials to the silent, but most effective, part played by sea-power. Throughout the nineteenth century expeditionary forces were despatched from the United Kingdom to various parts of Africa, the more important

to either North Africa or to the extreme south. Here we see hundreds of thousands of troops, with horses, guns, and war material, safely passed over as much as six thousand miles of ocean. During the Anglo-Boer War, who will deny that a great naval war was fought out in certain foreign cabinets, from which the sea-power of Great Britain emerged triumphant. Those who protest at the great cost of Great Britain's naval armament are apt to forget that the war-ships are exercising a function in peace as potent as when they were in action at the Nile and Trafalgar.

The tendency towards nationalism in certain of the larger colonies, the steady accumulation of local problems and the discussion these arouse, is hiding from many the foundation upon which the independence and prosperity of these oversea possessions stand. We will take Australia as a case in point. The exports of this Commonwealth for 1907 was £73,000,000, of which over two-thirds went to the mother country or British possessions. The State debts amounted to £240,149,727, the greater portion of which is held in the United Kingdom. Now by her trade Australia exists; that trade was created by capital borrowed from the mother country or upon the mother country's guarantee. The interest on her huge debt is paid by her trade with the outer world; that trade is only secured by the supremacy of British sea-power. Destroy this sea-power and the trade is at the mercy of any hostile sea-power; but more than this, if British sea-power fails, British markets will suffer, for it is only the security given by the royal navy that has made those markets what they are; only such a guarantee as has enabled British colonies to borrow so cheaply such large sums of money, by which the rapid development of their agricultural, industrial, commercial, and mining resources occurred. The principal markets of the colonies are within the empire; the dissolution of the empire, which must inevitably follow any other nation obtaining the command of the sea, means the destruction of those markets.

The independent naval policy now entered upon by

Canada and Australia does not tend towards strengthening the sea-power of the British Empire, nor does it in any way give the colonies concerned even a shadow of protection: the sea-borne commerce will still have to be protected by the royal navy. If the underlying idea of creating these small navies is, that in the event of a war in which Great Britain is involved these colonies will declare independence, and then neutrality, then those responsible are ignorant of the working of sea-power and of historical precedent. Washington, in delivering his eighth annual address in 1796, said that "to secure respect to a neutral flag requires a naval force organised and ready to vindicate it from insult or aggression;" the experience of the United States is a case in point. If the sea-power of Great Britain was able to bring these colonies into existence, able to make them what they are—it has given them life, wealth, prosperity, and happiness under the most adverse conditions—then why fear that that sea-power will fail in the future; if there is a fear, then rather than withdraw support and squander the men and money in an ineffectual attempt to bring into being in a few years what it has taken nations centuries to create, add the resources to the support of the British navy. Whilst Canada and Australia are an integral part of the British Empire, the whole naval strength of Great Britain will be exercised in the defence of their trade routes and lines of communications. Many colonials appear to think that because British warships are rarely seen in certain colonial ports, that these are left without protection, forgetting that the possession of that particular colony may be decided in a naval battle fought possibly in the North Sea or the Atlantic Ocean, and that colonial indifference in a service just as much colonial as English, Scotch, Irish, or Welsh, may turn the scale and mean the loss of independence.

Let us assume for a moment that the neutrality idea, favoured by fortunately only a small section of colonials, was actually carried out, and what we all hope is the impossible really happened, that the British fleet lost a decisive

battle in the North Sea; either the victorious power now in command of the seas would at leisure annex the newly declared independent and neutral states on the justifiable plan that such declaration was made in the most sordid and cowardly spirit of self-interest; or if such a power was high-minded enough to refuse to sully its flag by placing such treacherous states under its protection, it would not be long before in the case of Canada that state passed by force of arms into the possession of the United States of America. The feeble struggles of an infant navy would avail her little, and in the case of Australia the Japanese Government would hardly waste time in sending her whole naval strength to make that long-wished-for and desirable country an Asiatic dependency. Unfortunately, the history of the United States appears to mislead colonial politicians and writers.

At the time of the American colonies' secession, the naval powers of the world were exhausted, the colonies were not dependent upon oversea commerce for existence, nor were they contiguous to a strong military power; yet practically the whole of the sea-borne trade of the United States was destroyed in the war of 1812–14. If this happened to Australia, could she survive? Could Canada withstand an invasion across her frontiers by an army greater than anything she could put in the field, backed up by naval attack and destruction of ports and shipping? It would appear that South Africa and New Zealand have a more rational appreciation of their obligations to the empire than have Canada and Australia; they apparently recognise their dependence upon the sea-power of Great Britain, and are prepared to add what strength they are capable of giving to that sea-power. "Colonies attached to the mother country afford, therefore, the surest means of supporting abroad the sea-power of a country. In peace, the influence of the Government should be felt in promoting by all means a warmth of attachment and a unity of interest which will make the welfare of one the welfare of all, and the quarrel of one the quarrel of all; and in war, or rather for war, by inducing such measures of organisation and defence as

shall be felt by all to be a fair distribution of a burden of which each reaps the benefit." [1]

South Africa, recognising that she is far from becoming a sea-power herself, that any vain endeavour to create a fleet of her own is fraught with physical impossibilities, and that even if such did not exist such a navy would only invite destruction in its infancy or youth, is more wisely prepared to strengthen the sea-power of Great Britain by the efficient method of contributing directly and indirectly to the one central navy; the question has yet to be settled as to whether the direct contribution will take the course of a fixed sum annually or a percentage of the value of the sea-borne commerce. Then the defence of the South African ports, dockyards, and coaling-stations is likely to be taken over by the colonial government. Such a policy undoubtedly tends towards making the navy more efficient, for every fortified harbour means less responsibility upon the navy, and means shelter for, not only disabled warships, but for mercantile shipping that might otherwise hamper warships in calling for naval protection.

Similarly, New Zealand, far removed from the probable scene of naval conflict, but no more secure from annexation in the case of the royal navy's defeat, prefers to contribute directly and indirectly to that navy rather than squander an even larger sum in an ambitious and ineffectual attempt to create a separate navy.

An argument used in some of the colonies in favour of the separate navy policy is that as the mother country will not last for ever the colonies should strengthen themselves, so that when the mother country is exhausted they will be able to stand alone. If the colonies will only realise that their duty to the mother country and to themselves, is to recognise the true cause of their existence and safety as being the sea, and not any particular piece of land, then there will be no fear of the mother country decaying or of the empire dissolving. Then, again, the older colonies, as their responsibilities grow and as they are waxing rich and

[1] Mahan, *Influence of Sea-Power*, p. 83.

important, are prone to question the wisdom of the parent country involving them in a quarrel the merits of which they have never been consulted upon, and in which they, as a part of the empire, will run a risk of suffering loss. Here certainly there appears ground for discontent on the part of the colony, though it must be remembered that any question which may arise between Great Britain and a foreign power must directly or indirectly affect the colonies. More confidence would be felt in the colonies if it were known that they had a direct say along with the mother country in such questions as may eventuate in war. There are signs that this may yet come about. If anything will hinder an Imperial Council, upon which each Dominion, Commonwealth, Union, and self-governing colony will have representation, and which will deal with truly imperial questions, it is the policy of independent navies. Nothing is more likely to divorce a colony entering upon such a policy of isolation from the parent state and from her sister states, for it is accentuating nationalism, which in the nature of things is in direct antagonism to imperialism. We have seen what happened to those Greek colonies that adopted a similar policy—how each grew up a potential enemy to the parent and to each other; nor were there in the case of those ancient states the conflicting commercial interests that will be found to-day.

Another important point which appears to have been lost sight of by Canadian and Australian statesmen is as to whether or not their respective countries contain those elements which make for sea-power. It is true that both have extensive seaboards, but so too has the United States. In neither case is an appreciable proportion of the inhabitants a seafaring population; further, both countries are sparsely populated, and here alone is a source of weakness, for the extent of seaboard is a source of strength or weakness according as the population is large or small. Both Canada and Australia are apt to estimate their importance by extent of territory; yet even if these vast territories carried a population in proportion to the ability of the land to do so,

there might still be lacking those elements which would entitle them to adopt an independent naval policy; it is not the extent in square miles nor number of population that makes for sea-power, but rather the inherent sea-sense of a large proportion of the people, together with inducements, and strong inducements, to follow the sea as a calling. Now, in both the case of Canada and Australia the attraction of the land for its inhabitants is far and away greater than that offered by the sea. If therefore the independent navy policy is followed by these two colonies, we may well expect to see the naval history of Persia and Rome repeated: the employment of a large proportion of foreign mercenaries, Scandinavians and Finns in the case of Canada, Kanakas, Japanese, and Chinese in the case of Australia.

In both colonies there are undoubtedly a number of men desirous of entering upon a naval career. Such would undoubtedly join the navies of their respective colonies, and are therefore lost to the central navy; and each year in the subsidiary service estranges them from the personnel of the parent navy, the very service they might have strengthened.

But the huge and accelerating cost of these colonial navies must of necessity starve the natural defence forces of both of these colonies, and means a great and wanton waste in some of the finest material for soldiers the world contains. This material is lost not alone to the colony concerned, but to the empire. Not only would greater efficiency have been obtained by both the navy and the army had Canada and Australia developed to their full extent the material available for their land services, giving such few seamen as each possessed to the royal navy, but greater economy to the colonies and to Great Britain must naturally have resulted; for the taxpayer of the latter country would have been relieved of a large portion of the burden of the imperial army, which should be largely recruited in the colonies. Then, again, have the advocates of the independent navy policy ever considered the absolute necessity for having an adequate reserve for their navy—

reserve seamen, reserve mechanics, and a reserve of wealth? The latter, for many years to come, could only be obtained through the mother country. No; for a colony, however powerful, if that colony enjoys all the benefits of an independent state, together with the absolute security of a dependent state, to enter upon a course which can only make for extravagant inefficiency, friction, and ultimate separation, is indeed to throw away the substance for the shadow. That a change has come over the policy of British statesmen towards the colonies during the last half-century, and that they now recognise the mother country's obligations to the oversea possessions, is evident from Mr. Balfour's address to the Press Conference in 1909. He said: "If I am right, that the fate of the empire depends upon fleet superiority, that superiority must be shown in home waters. The German Ocean, the Channel, the neighbourhood of these islands, possibly the Mediterranean—these are the theatres on which, if there is to be an Armageddon, the Armageddon will take place; and it is folly for us to attempt too far to dissipate those fleet constituents, so that when the time of crisis arises we shall not be able to have that concentration upon which our whole imperial destinies and the defence of each separate portion of the empire substantially depend. The fate of Australia, the fate of New Zealand, of Canada, South Africa, India—that is not going to be decided in the Indian Ocean; it is going to be decided here." If, then, as we naturally suppose it will be, the British fleet is victorious, what influence will the colonial navies have exercised towards bringing about that victory? If, on the other hand, the British fleet is defeated, how long will the colonial navies withstand the onslaught of the victors?

CHAPTER XIII

LAND DEFENCES AS ADJUNCTS OF SEA-POWER

In the days of sailing-vessels, when the wind was the propelling agent, the strategic importance of oversea possessions was far from as great as is the case to-day.

A century ago calling stations for victualling and refitting were useful, but did not play the vital part in sea-power that they do in these days of steam. The advantage that Great Britain holds over all other powers is the number and strategic situation of her oversea possessions. Not only are these stations placed in every quarter of the globe, but they one and all serve as a coaling and refitting station, which in time of war, if adequately defended, is denied to the enemy. Each of these stations will also act as a protector to British mercantile shipping, more effectively protecting British commerce than a squadron of the enemy's warships will be able to do for the commerce of their country.

The possessions of Great Britain, if each be properly and effectively fortified, more than double the efficiency of British sea-power, for they are releasing something over 40 per cent. of the navy for concentration in such theatres of operations as decisive actions will be fought.

If we suppose that not one of England's oversea possessions was defended, and as 60 per cent. of the mercantile marine of the world flies the British flag, it will be understood what an impossible undertaking it would be for the navy to protect that shipping. If it were attempted, then the battle-fleets would be dangerously weakened; if not attempted, the loss would be so great as to bring economic agencies into play which might bring about a premature and dishonourable peace. But with each of the numerous British possessions adequately defended, each a

secure harbour of refuge for the merchantmen, a coaling and refitting station, practically every ship of the British navy is released for deep-sea fighting. The sparseness of the oversea possessions of all other European maritime powers calls for expensive naval defence in time of war. A large proportion of their navy must be employed upon convoy duty, thus considerably weakening their battle-fleet.

The dependence upon coal by the battle-fleet must confine operations to the vicinity of coaling-stations; and as both belligerents are equally dependent upon fuel, and become less effective the farther they are from its supply, the likely theatres for the fighting of the decisive actions are restricted to points of about equal distance between certain naval bases of the powers at war.

In sea war the frontier is the seaboard; hence the power which has the greatest number of points which can be converted into bases is in the strongest position; and if these points are numerous enough and so situated as to form a chain along which mercantile shipping can move from link to link in comparative security, then that power is in almost an impregnable position, and far more so to-day than in the days of sailing-vessels.

It is impossible to exaggerate the important part coal-supplies will play in the next naval war. A squadron of twenty-eight ships, made up of four battleships, four first-class cruisers, four second-class cruisers, and sixteen smaller vessels, including three destroyers, consume 1100 tons of coal per diem when under way, or 110 tons of coal when in harbour. The Russian fleet on its disastrous voyage to Japan was delayed for two months at Madagascar awaiting colliers; and this same fleet was driven to attempt the passage of the Tsushima Straits in preference to making the more safe passage either via Tsugaru or La Perouse, because the latter would have necessitated a greater expenditure in coal.

There are only two parts of the British Empire that are open to direct invasion by land—India by Russia, or Canada by the United States—but even here the navy

will play an important part in deciding the eventual ownership of these possessions of the British Empire. Certainly in the case of an invasion of India by Russia the British navy would be as instrumental in the overthrow of the invaders as was the Roman navy in the overthrow of the Carthaginian forces under Hannibal in Italy. Neither India nor Canada would be powerful enough to protect themselves unaided against a determined invasion by land, therefore the assistance they would need to secure them would be from oversea; hence the command of the sea would have to be in the hands of Great Britain to give these two possessions that uninterrupted communication with the rest of the empire necessary for their security.

Over a century of peace has enabled Great Britain to outflank in all parts of the world her foes of the future. Little did the British adventurers of pre-steam days realise the extent they were strengthening British sea-power when annexing an island here or a coastline there. To-day there is hardly a seashore that does not contain a fortified port flying the British flag, nor a seaboard without its harbour of refuge, with a reserve of men, ammunition, and that essential of modern naval warfare, coal for the British navy; and this at little, and in the case of the dominions and self-governing colonies, no expense to the British tax-payer. The full extent of all these untold advantages to sea-power will only be fully appreciated in the next maritime war. But some slight idea of Great Britain's advantage in the respect of fortified coaling-stations in all parts of the world may be gathered when we recall the great difficulty experienced in the Russo-Japanese War in moving the Baltic fleet to Eastern waters, although the intervening ports were neutral. Japan would have had the same difficulty if she had desired to move a fleet into her enemy's European waters.

A glance at the map of the world will show how efficiently placed are our *points d'appui;* and yet few, if any, are the outcome of foresight. Fortunate indeed has Great Britain been in this respect in the Caribbean Sea,

for upon the completion of the Panama Canal this American sea attains to the same importance as the Mediterranean; and as England holds the entrance to an outlet from the latter with Gibraltar, so then will she command the Caribbean with Jamaica, Barbadoes, the Bahamas, and Trinidad. But at the time of the occupation and retention by naval power of these islands, it was never thought that America would be divided by a waterway destined to be a main trade-route of the world. Had the statesmen and sailors of Great Britain but foreseen this great engineering feat, they would undoubtedly have taken and kept at all costs Hayti, Guadeloupe, and Cuba, at a time when there was ample excuse for so doing, and when England was well able to do so. These possessions would have completed her command of the future American Mediterranean.

Lack of foresight in the evolution of her sea-power by England's statesmen and seamen of the day allowed France to possess herself of Madagascar; yet, by right of naval victory on the coasts of that island, this possession should have been England's. Its importance in naval strategy has grown with the expansion of South Africa. The third largest island in the world, with fine and secure harbours, Madagascar practically masks the east and south coasts of Africa; it threatens Table Bay, Simonstown, Port Elizabeth, East London, and Durban, the ports of the Union of South Africa; it likewise threatens Aden, Mauritius, the Seychelles, and Ceylon; and may act as a stimulating reserve to New Caledonia in a threat upon Australia. But this can only happen in the event of France deciding to exploit the natural advantages of the island. The fortifications of Diego Suarez are efficient. This natural harbour is situated on the extreme north of the island, 1650 miles from Aden, and 1600 miles from Durban. Now that the reorganisation of the French navy is taking place in all seriousness, the supreme importance of Diego Suarez, and its situation as regards German East Africa, will be fully recognised. If Madagascar be held by a sea-power at war with Great Britain, the most effective neutralisa-

tion of the threat that a naval base on that island would hold over our African ports would naturally be adequate land defences. The British ports that would come within the sphere of naval attack from Madagascar are Durban, East London, Port Elizabeth, and Table Bay, on the south-east and south coast of Africa; Mauritius, the Seychelles, Rodrigues, and the Chagos group, in the Indian Ocean. Of these stations, the Cape and Mauritius only are efficiently fortified. On the east coast of Africa we have the German stations of Dar-es-Salaam and Tanga, covered, however, by the British protectorates of Zanzibar and Pemba; yet it should be borne in mind that commerce-destroyers might lie in wait under the protection of the guns of these two German ports, and strike our commerce from Aden to the Cape, and destroy such unprotected coaling-stations as lay within their cruising range. Such a policy would naturally appeal to the enemy; the incentive would be the anxiety to destroy some of our many *points d'appui* and to obtain the local command of the coastline, the success of which would tend towards the balance of seaports. For the loss to us of a coaling-station is equivalent to the loss of war-ships, and the loss of prestige is greater if that port belongs to a self-governing colony. The ravages of a hostile fleet operating from Madagascar or from Dar-es-Salaam would be less restrained if the Suez Canal were closed. The enemy's area of operations would in that case be extended, and in all probability part of his fleet would command the Indian Ocean and a portion of the Pacific, until a decisive battle had been fought in the North Sea or Atlantic. But even so British shipping would not suffer, in the waters so temporarily commanded by the enemy, to any material degree, providing every available British port was defended. Such a policy would considerably restrict the area of the enemy's operations by denying him coal from any but his own ports. True, the temptation would be great for the enemy to make determined attacks upon our ports, crowded as they naturally would be with mercantile marine awaiting a favourable moment to dash to the next fortified port;

coal at the water's edge in readiness for our warships. It would all depend upon the effectiveness of the defence as to whether or not a hostile commander would risk his ships, or in doing so whether he succeeded or not. No commander far from a base will care to risk his ships against efficiently armed and manned shore batteries; he is first of all severely handicapped by a limited ammunition supply. If the forts have heavy armament and torpedo defence, the ships must keep at arm's length, and what fire they can spare is more likely than not to be ineffective.

An outstanding feature in the evolution of naval warfare is the increased efficiency of coast defence, increasing the impotency of naval attack against shore batteries. A little reflection on the part of the layman will explain this. As laymen find the money, they quite rightly want to know the why and the wherefore of these things. The warships in attacking are at the great disadvantage of approaching a practically unknown coast; the exact number of works, guns, their nature and whereabouts, are not known. The defence from well-concealed positions has noted the approach of the enemy over well-ranged waters; his guns are so disposed that, unless a shell actually hits his mounting, he has little to fear at the longer ranges. He has a solid platform, which enables him with mathematical accuracy to correct his shooting by observing the splash caused by the fall of his last shot. He is in possession, or ought to be, of depression and automatic range-finders, in addition to which he has, out at sea, passing points upon which he can range his guns. The attackers are at the grave disadvantage of firing from a moving platform, and the gunner has to trust a great deal to chance. He can only discern the fall of his shot if it happens to fall short, for his overs are rarely seen. His target, more often than not, is so cleverly hidden, that he is never quite sure of it. Then, too, he is at an additional disadvantage of being a much more prominent target, most of which is vulnerable. The casemated gun on shore, mounted on a

solid platform, firing smokeless powder hardly discernible from a few hundred yards seawards, laid (sighted) mathematically, and firing an armour-piercing projectile at a range up to 17,000 yards (its effectiveness controlled by the armour belting of the target) at a target most parts of which is vulnerable, must have a great advantage. Owing to the mechanically accurate means of sighting, the third and each succeeding shot from shore should hit, if the vessel is within range. Then it must be remembered that the shore batteries are not limited to ammunition supply. On the other hand, the naval gunner, having an almost invisible target to fire at, comes under effective fire long before he has picked up the gun-encasement he has to fire at. When he does pick it up, owing to the roll of the ship—the uncertainty of which mechanical skill has not been able to counteract—he has to trust solely to his own judgment; but the target should be so well protected that, if his shot is straight, it would be ineffective. Then comes the question of ammunition. Here again the advantage is with the shore batteries; for a first-class cruiser only carries 80 rounds per gun for 12-in., 150 rounds for 9·2, 200 rounds for 7·2 (or 6-in.), and 300 rounds for lighter guns. It is therefore not likely that any commander is going to render his command impotent by expending more than half of his ammunition on the bombardment of shore batteries.

As we are now considering the question of oversea possessions, and the need for the efficient defence of all such ports and harbours as will succour mercantile shipping and serve as coal depots and refitting stations to our warships, it will be as well to endeavour to show the superiority of shore batteries to any form of floating defence. And in this it must be borne in mind that we are assuming that the command of the sea is held by Great Britain, and that her fleets are masking the battle-fleets of the enemy, and that the coast defences are only dealing with such commerce-destroying cruisers as may have eluded our vigilance, and are driven by want of coal, or in an endeavour to

destroy a port and its shipping and dockyards, to attack a defended position.

In this consideration of the efficiency of shore defences it must be understood that the attack is solely from predatory cruisers, for nothing more formidable can occur to any of our colonies whilst Great Britain holds the command of the sea.

The superiority of the gun mounted on shore over that on the rolling platform of a ship is shown in the following table, compiled from naval practice returns, giving the hits per gun per hour, the targets being guns on shore, one end on and one broadside on :—

HITS PER GUN PER HOUR

Range.	6-inch Gun.		9·2-inch Gun.	
	End on, 18 Sq. Feet.	Broadside on, 33 Sq. Feet.	End on, 49 Sq. Feet.	Broadside on, 115 Sq. Feet.
Yards.	Hits.	Hits.	Hits.	Hits.
500	50	65	105	105
1000	15	22	30	50
1500	7	12	16	30
2000	4	7	9	17
2500	3	5	6	11
3000	2	4	5	9

This table shows that at 2500 to 3000 yards the chances of hitting a gun on shore are very remote indeed. It must also be remembered that the table is but a reflection of practice firing, where the gunners were not under the excitement of being fired at, as would be the case in war. At the ranges of 2500 and 3000 the guns at sea would have expended two-thirds of their ammunition before a hit had been made ; whereas the guns on shore should have secured at least two hits out of every three shots fired, or 170 hits per gun in the hour, against the enemy's two at 3000, or four at 2000, yards. It will therefore be seen that one gun mounted on shore is equal in hits to eighty-five guns of a like calibre at sea ; but this, of course, only holds good

at the longer ranges. No commander of a hostile cruiser, determined on mischief, would be insane enough to engage shore batteries at these ranges, but would, if he found the batteries weak in gun-power, close in to the 500 yards range. This closing in from 3000 to 500 yards would take him 4½ minutes, and could only be accomplished if the shore guns were of an obsolete pattern. Many of the colonial batteries are still armed with the slow-firing breech-loading gun; these fire one round in 2·35 minutes. If six of these guns were mounted in the battery attacked, ten rounds would have been fired. Six at least would have hit the rapidly closing cruiser, unless these hits were scored at 1000 yards. Where their penetration of armour-plate is 9·8 inches, the chances are in favour of the cruiser overwhelming the shore guns before a vital hit is scored; for if the cruiser is able to open her fire at this range, though she does not score a hit immediately, her fire will be so hot that the shore gunners are liable to be demoralised to such an extent as to affect their aim. On the other hand, if the shore battery is armed with 6-in. and 9·2 latest pattern armament, and the hostile cruiser attempted the same tactics, knowing full well the futility of engaging guns on shore at 3000, 4000, or 5000 yards (the longer the range, the greater his disadvantage), the zone he has to cross will have had 97·04 rounds pitched into it. Sixty-two of these A.P. shells should have taken effect. The higher the battery is above the incoming cruiser, the more effective the fire. Even should the vessel survive the 4½ minutes' rush, the storm of shell hurled at her will so demoralise her gunners that nothing like the percentage of hits shown in the table will be scored, and long before she could have dismounted any of the shore guns she would have been sent to the bottom.

The most recent wars in which naval attacks on land defences have occurred only go to prove the superiority of the shore-mounted gun, where such approximates the power of the naval weapon and is effectively mounted, protected, and manned. In no case which we are now about to con-

sider can it be said that the shore batteries were either efficiently armed, manned, or protected. Still, the data to work upon is of value as proof of the efficiency of coast defence.

In the American Civil War, the Federals in 1863 were assured of the command of the sea. It was believed that the monitor, the forerunner of the battleship, mounting shell-guns and so heavily armoured as to be considered invulnerable, would destroy all naval precedent; and it was even believed in authoritative circles that these monitors were more than a match for shore batteries. The first conflict between one of these armoured vessels and a shore battery took place in January 1863, when the *Montauk* bombarded Fort McAlister, an insignificant fortification mounting nine 30-pounder guns. The monitor expended two stocks of ammunition without doing any damage.

The attack of Admiral Dupont on Fort Sumter exploded the theory that ironclads were to upset the experience of the past. In April 1863 Dupont attacked with nine ironclads the forts of Charlestown. These consisted of six, and were armed as follows:—Fort Johnston, one 10-in. mortar; Fort Sumter, upon which the attack was to be concentrated, mounted forty-four guns, being four 10-in. and eight 8-in. Columbiads, two 9-in. Dahlgrens—all smooth-bores—and two Brooks rifled 7-in. guns; there were also seven 42-pounder rifled guns, the remainder being 32-pounders. Fort Moultrie mounted nine 8-in. smooth-bore Columbiads, some 32-pounders, and two mortars. Battery Bee, a continuation of Fort Moultrie, mounted five 10-in. and one 8-in. Columbiads. Fort Wagner mounted one 32-pounder rifled gun in action; Fort Beauregard, on Sullivan's Island, two 32-pounders; and there were two 32-pounders on Cuming's Point.

The attacking fleet mounted thirty-two guns in all—seven 15-in., twenty-two 11-in. smooth-bores, and three 150-pounder rifled guns; but the weight of metal was with the attackers. The attack only lasted forty minutes. In that time the forts fired 2229 shot and shell; whereas the

ships only fired 139 rounds, all but twenty-four of which were fired at Fort Sumter, which was hit fifty-five times. Of the ships, the *Keokuk* was hit ninety times, sinking at her anchorage next morning, the *Weehawken* fifty-three, and the *Nantucket* fifty-one times ; the range was from 500 to 1000 yards. The admiral in his report stated :—

"No ships had been exposed over forty minutes, and yet in this brief period, as the Department will perceive by the detailed reports of the commanding officers, five of the ironclads were wholly or partially disabled—disabled, too (as the obstructions could not be passed), in that which was most essential to our success; I mean in their armament, or power of inflicting injury by their guns. . . . I was convinced that persistence in the attack would only result in the loss of the greater part of the ironclad fleet, and in leaving many of them inside the harbour, to fall into the hands of the enemy." [1]

In fairness to Admiral Dupont it should be said that he deprecated the attack, which he realised all experience was against. He was supported in his protests against the attack by Ericsson, the inventor of the monitors, who in writing said : "A single shot will sink a ship, while a hundred rounds cannot silence a fort, as you have proved. The immutable laws of force and resistance do not favour your enterprise." [2]

The war between Spain and Peru (1866) gives an excellent illustration of the advantage land defences have over naval attack. The shore batteries of Callao were in two groups—one to the south, one to the north—and mounted between them forty-eight smooth-bore 32- and 24-pounders. There were also four 300-pounder rifled Armstrongs, turreted and protected with 10-inch armour, and five Blakely rifled 450-pounders. The batteries were of masonry and sandbagged.

The attacking force consisted of the *Numancia*, an ironclad of 7300 tons, $5\frac{1}{2}$-in. and 4-in. armour, mounting forty

[1] Colomb, *Naval Warfare*, p. 422.
[2] H. W. Wilson, *Ironclads in Action*.

68-pounder guns; the *Ville de Madrid*, unarmoured (fifty-six guns); *Resolucion* (twenty-three guns); *Blanco* (thirty-eight guns); *Berangala* (thirty-six guns); *Almanza* (fifty-two guns); *Vencedora* (three guns). This fleet was divided into two divisions for the attack, the *Numancia*, *Blanco*, and *Resolucion* attacking the southern batteries, the *Ville de Madrid*, *Berangala*, and *Almanza* attacking the northern batteries.

As the ships approached the batteries, they increased their speed, and opened fire at 1500 yards at 10 A.M. The batteries retained their fire until the ships were within 1200 yards. At 12.30 the *Ville de Madrid* was put out of action, a shot having pierced her steam-pipe, killing twelve men. A few minutes later the *Berangala* was hit below the water-line with a 450-pound shell, and had to withdraw. By 2.30 the ammunition of the *Blanco* and *Resolucion* had been expended, and they withdrew. The former had been twice on fire in the neighbourhood of her magazines. At 4.30 the remaining ships withdrew, having been under continuous fire for six and a half hours. The Spanish loss, including wounded, amounted to 200. The batteries lost eighty killed and wounded, twenty-one of whom are accounted for by the accidental bursting of one of their 300-pounder shells. The propellent used by the shore guns was a poor class of black powder. All the ships were repeatedly hit, but the range and lack of power saved them from much damage.

The American-Spanish war of 1898 gave us an opportunity of seeing more modern guns and armour-plate in action. On the 12th May, at 3 A.M., Admiral Sampson attacked the town of San Juan with the battleships *Iowa*, 11,296 tons, mounting four 12-in., eight 8-in. breech-loading, six 4-in. quick-firing, and twenty 6-pounder quick-firing guns; *Indiana*, 10,400 tons, four 12-in., eight 7-in. breech-loading, four 4-in., and twenty 6-pounder quick-firing guns; *Amphitrite*, 3990 tons, two 10-in. breech-loading, six 6-pounder quick-firing guns; *Terror*, 3990 tons, two 10-in. breech-loading, six 6-pounder quick-firing guns; the first-

class cruiser *New York*, 8480 tons, six 8-in. breech-loading, twelve 4-in. quick-firing, eight 6-pounder quick-firing guns; and two second-class cruisers, *Detroit* and *Montgomery*, of 2000 tons, nine 5-in. breech-loading and six 6-pounder quick-firing guns.

The city of San Juan lies at the head of a long, narrow bay, a high headland separating it from the ocean. At the mouth of the channel lies the lofty island of Cabras, on which was mounted a battery. On a promontory at the entrance of the harbour were the Marro Castle and the San Carlos batteries. The armament of the forts protecting the harbour were nine 4-in. Hontoria breech-loading guns, throwing a 438·6-pound A.P. shell; thirty-four 10-in. rifled muzzle-loading Armstrong guns; twenty-two 5·5 converted breech-loading guns; and sixteen 7·5 Canet guns. Beyond this information there are no details as to smaller armaments or range-finding, but it is stated that the morale and gunnery of the Spaniards was ridiculously bad.

"Preliminary to assault the admiral transferred his flag to the *Iowa*, and issued orders that the flagship, followed by the *Indiana*, *New York*, *Amphitrite*, and *Terror*, should steam inward past Cabras Island, then turn and pass outward by the westward channel, repeating this evolution until signalled to stop. The attack began at 5.15, and lasted three hours. The ships steamed into the harbour and made the circuit three times outlined in the general instructions. Alike in town and forts the Spaniards seemed asleep, and only the roar of the guns appeared to waken them. Four broadsides were fired before the Spaniards replied from their elevated positions. Inward swept the *Terror*, delivering her fire from her turrets as she went; then came the *Indiana*, then the *New York*. When the *Terror* turned to go back in the circuit, the whole line had become engaged. The squadron had completed one round, and was returning on the second, before the Spanish gunners became fully warmed up to their work. Then from their elevated positions they poured in a plunging fire upon

the fleet—one which, had the guns been well served, might have done serious execution. Their fire was furious but aimless. The *Detroit* drew in close under Marro, and shells seemed to rain round her as she lay within 500 yards of the batteries, hurling projectiles from her 5-in. quick-firing guns; yet she escaped damage.

"By the end of the third round the admiral deemed it useless to continue the attack; he therefore signalled to withdraw. The escape of the fleet from the heavy and continuous fire from the enemy's batteries, all occupying elevated positions, was something incredible, and could only have been due to the absolute incapacity of the gunners. One lesson of importance was learned from this three hours' sharp work. It was the first time that modern ships had attacked in force land defences, and the result was observed by the military nations of the world with interest. It had been an unsettled problem whether coast defence could be best provided for by war vessels or land defences. The engagement of San Juan and the subsequent naval siege of Santiago went far to settle this question. They had, it may be said, a special advantage from their elevated position, though against that their guns were packed together. On the other hand, they bore the bombardment practically without replying, for the wretched gunnery of the Spaniards was a subject of derision to the sailors. Had the guns of the Marro fort been of modern type, and handled by well-trained gunners, it is questionable whether any of the ships would have survived the bombardment." [1]

At Santiago the result was practically the same. The attacking fleet mounted eight guns to the defenders' one. Ten-inch Krupps were the heaviest guns on shore, whereas sixteen 12·5-in. guns were among the guns attacking. Still, if the attackers had been double the strength, the result must have been the same. The fleet was kept at arm's length. At Santiago, as at San Juan, the Spaniards showed little or no knowledge of gunnery; even the elementary principles of ranging were wanting.

[1] Morris, *American War with Spain.*

In the Russo-Japanese War the Japanese authorities were not carried away by any false idea as to the invulnerability of their battleships, as were the Federals in the attack on Fort Sumter, and therefore did not risk a naval attack on the shore batteries.

The object in introducing this discussion in the manner that has been done, is for the purpose of endeavouring to show those colonial authorities still in doubt as to the advisability of erecting adequate coast defences, that such are of the utmost importance in the scheme of imperial defence, and that every port fortified is an increase to British sea-power. No colony has a right to look for protection for its coastline or any of its ports by the detachment of a single ship from the navy, for it is only weakening British sea-power to the extent of the ships so detached.

Had Great Britain become embroiled in a naval war of any importance at the time of the Anglo-Boer War (1899–1902)—and undoubtedly such would have been the case had Germany's navy been as strong as it is to-day—the naval enemy would have found some of the South African ports, if not entirely undefended, so weak in their defences that little trouble would have been found in their destruction. With the request, however, made by the First Lord of the Admiralty to the colonial premiers at the Conference in 1902, for the colonies to increase their direct contribution to the navy, the subject of imperial defence was more closely examined by the colonists themselves, and then it was that many of them discovered their indebtedness to British sea-power. It, and it alone, was responsible for the position they then held, as it is responsible for their present liberty and security. The question was asked in the colonies: Does a direct contribution guarantee naval protection of the ports and shores of the contributing colony? When the question was most reasonably answered in the negative, some inquiry followed in most of the colonies as to the effectiveness of the existing coast and harbour defences. In many cases the inquiry was followed by reorganisation and increased armaments. Canada led the

way by taking upon herself the defence of Esquimault and Halifax—a relief to the British taxpayer of the cost of over two thousand men. The importance of Esquimault to British sea-power cannot be over-estimated, for it protects the coal-fields of Vancouver Island and commands the western terminus of the Canadian-Pacific Railway. The responsibility of holding this important imperial station is far from light, if seriously undertaken. The defence of these Canadian stations is just as vital to England, Australia, New Zealand, or South Africa as it is to Canada; and the inhabitants of those far-removed parts of the empire have as much right to demand that these defences are adequate as the Canadians have for insisting upon the proper defence of England and the sister colonies. There can be no nationalism in imperial defence; it is the one problem which cannot allow of colonial exclusiveness. Inter-colonial or inter-provincial jealousies cannot be tolerated if defence is to be tangible. Political indifference or ignorance of the subject on the part of colonial politicians must be eradicated.

Geographically, then, Canada is responsible for the defence of Esquimault, Halifax, and St. John's. It may be that, as the bonds of imperial defence are tightened up, she may go farther afield, assume a greater responsibility still, and garrison Bermuda. Her excuse for this would be sound, inasmuch as Bermuda commands the foreign naval port of Boston, which threatens her shores. Australia has ten defended ports. Those on the east coast are threatened from New Caledonia, New Guinea, Yap, Pelew, the Carolines, New Britain, New Ireland, the Marshall Islands, Buka and Bougainville in the Solomons, and Samoa, any or all of which might be formidable threats if our possible enemy also went in for a policy of oversea fortifications as *points d'appui* for commerce-destroyers. It is only reasonable to suppose that Germany will erect a naval base at one of these islands to put herself astride of the Panama trade route; all the more reason that such should be well flanked by the fortification of our own possessions on the same route.

The importance and efficiency of the Australian defences have of course been brought home to every inhabitant of the island continent by the Russo-Japanese War. The rapid rise of Japan as a naval power, her proximity to Australia, and the latter's restriction against Asiatic immigration, though Japan be an ally of the mother country, must, however, call for increased vigilance on the part of the Australians. Are any of these defended ports of Australia in a position to cover effectively the refitting of one or more disabled cruisers of, say, the Pacific squadron? The mere defence from destruction of the towns, or the prevention of hostile landing, which can always be done by mobile troops, makes them of little real value in imperial defence. More than that is required if these defended ports are to be efficient adjuncts to British sea-power. The Australians must be in a position to undertake those responsibilities they themselves expect from Halifax, Durban, and Simonstown.

New Zealand at first sight in the map appears as the embodiment of supreme isolation. Sheltered by distance from the effects of the world's changing politics, troubled little by quarrelsome neighbours, her lot would seem the envy of peace-loving communities. Still we find that her four ports of importance are defended, and wisely so. The annihilation of distance and time by the science of the age have, unfortunately for those islands, so contracted the world that they are brought well within the area of the probable strife. Their prosperity, the richness of their soil, and the mildness of the climate must make these islands the envy of any hostile naval power seeking an outlet for a surplus population. The foreign possession nearest to New Zealand is New Caledonia, and may be considered a threat on Auckland. As a counter-threat, some arrangement between New Zealand and Australia should be arrived at for the defence of Norfolk Island. Such a step would add to the security of mercantile shipping in that quarter of the Pacific during a naval war; Norfolk Island, if efficiently defended, would be of as great value to Australia

as to New Zealand. Its importance to British sea-power would be considerable, and, by denying a likely refitting station to the enemy, imperial defence is strengthened. In the interests of the empire these two Pacific colonies should share the expense of defending this strategically important island.

Round the coast of Africa the map also shows a chain of red spots denoting imperial defences, yet two only are of colonial upkeep, those of Cape Town and Natal. Simonstown is defended as a naval dockyard at the expense of the British taxpayer.

The negro colony of Sierra Leone, which must ever remain a Crown colony, cannot, in the meantime at least, be given any responsibility in imperial defence. Its importance as a second-class naval station is accentuated by the proximity of the French naval base of Dakar, the most important foreign colonial naval base in the Atlantic, seeing that it threatens the East Indies, British Guiana, and our South African colonies; it is almost centrally situated, as far as Halifax and the Cape are concerned. Two undefended British possessions, which must prove of great strategic value to the sea-power holding them in time of naval war, are those of Tristan-da-Cunha, lying midway between South Africa and South America, and Walfisch Bay. This strategic point lies in the very centre of the coastline of German South-West Africa, and in the event of war between Great Britain and Germany would be of the utmost importance to the power holding it—of more vital consequence to the Germans, perhaps, for it is the only likely harbour for disembarkation on that coastline. This port could well be defended by the South African Government; and, when supplied with coal from the Cape, this port might be made of as much importance to British sea-power as Dakar is to the sea-power of France.

Historical research fully confirms the axiom "that oversea possessions are a source of strength to a naval power by enabling a given amount of work to be done by fewer ships." It therefore appears strange indeed to

find how many seemingly important possessions are neglected in this respect by us, and Tristan-da-Cunha is one of these. The coaling port of the Cape, behind which are inexhaustible coalfields, is within 1800 miles of these three islands, and means of relieving a garrison, if stationed there, are near at hand. If it was considered necessary, and then found to be strategically sound, to garrison these islands at the beginning of last century, when the need for coal as an implement of war and of commerce was not felt, when the need for havens of refuge for British mercantile marine was infinitesimal compared with the need in the next naval war, surely the reasons for their fortification to-day are urgent and undeniable. One can readily conceive circumstances arising in a naval war when the retention of these islands by land defence might be equivalent to a proportion of naval power.

Certain foreign naval writers predict that in the next naval war in which Great Britain is involved her enemies will pursue a *guerre de course*. Undoubtedly if such a policy was to be in any way effective, it would have a very great effect upon the termination of the war; for the whole fabric of empire is held together by sea-borne commerce, resting, of course, upon sea-power. Naturally, then, England's present situation of reliance on oversea trade suggests such a plan of campaign; the more numerous Great Britain's oversea defended ports are, the more safe must be her mercantile marine. It does not matter how imminent an outbreak of war appears, British merchantmen will sail, the only difference being an increase in the premiums on insurance against war risks. The farther apart the British harbours of refuge are, the greater then the chances of capture. With a view to minimise the risk of being seized by a hostile cruiser, the unarmed shipping will break away from the great trade routes. The value of our numerous possessions, if adequately fortified, will then be fully felt. Wireless telegraphy would notify to the approaching merchantmen the approximate whereabouts of a hostile cruiser, and thus from fortified port to fortified

port would our mercantile marine pass with the minimum amount of risk and without weakening our sea-power by drawing upon the navy for convoy duty.

It is undoubtedly due to our very wealth in oversea possessions that we fail to fully appreciate their great value to sea-power. It is evident beyond contradiction that the foreigner does not agree with us in this respect, for he most thoroughly fortifies what oversea possessions he was fortunate enough to have left him by us as worthless, or which we have exchanged with him for something more in keeping with our commercial instincts.

As the mercantile shipping of the British Empire is slightly greater than that of all other maritime powers combined, and as every colony and possession is a partner in this marine corporation, it is the duty of each partner to shoulder his share of the burden, even at some sacrifice. This the junior partners can best do by fortifying their ports. Possessions still held as Crown colonies should be likewise fortified. By this policy the navy will be relieved of a twofold responsibility—the safety of the possession itself, and the security of the mercantile marine which may be in the neighbouring waters. The navy will then be enabled to carry out unhampered that vigorous offensive defence which all members of the empire so confidently expect, the only defensive policy that can be adopted if the empire is to remain intact. The fact that there would be fortified coaling-stations under the British flag wherever the enemy could be found, would be of inestimable value, while the realisation by the enemy that if disabled they could not reach their naval bases, would be demoralising.

Economy, that watchword of all oppositions aspiring to office, must commend the policy of fortifying available British possessions, for the very excellent reason that the self-governing colonies, if encouraged, will for numerous reasons allied to those of defence undertake at their own cost the fortification of naval ports within their sphere of influence.

It is contended by some authorities on this subject that

the influence of fortified ports does not extend beyond the range of the guns of the forts, that "strategic port" is but a theoretical term where naval war is concerned. Now, at no period of maritime war can this be said to have held good; to-day there is less force in the argument than in the past. The evolution that has taken place in weapons may have altered the application of principles underlying tactics, and in a somewhat less degree the application of principles upon which strategy is founded, but the principles themselves remain the same, and will ever be so until the end of time. The moral influence of a fortified port must extend far beyond the range of gunfire, and this naval influence must affect the strategy of friend and foe. The value to Nelson of Jamaica, Barbadoes, Tobago, Trinidad, and Antigua during the period that Villeneuve attempted to gain the command of the sea is historical proof of the importance of fortified ports.

The Seychelles, lying to the north of Madagascar, and situated midway between the French naval stations of Diego Suarez and Obok, if efficiently fortified, would exercise considerable influence on both of these bases. It would enable an inferior British naval force to watch the movements of a greatly superior force of the enemy in the vicinity of either of these ports; while, if a favourable opportunity occurred, attacks on an inferior force of the enemy could be made. Port Louis (Mauritius), once a serious menace to British shipping, and captured by us because a harbour to French privateers, would likewise act as a threat to Madagascar; so that geographically that island is outflanked by British possessions. Yet up to the present little advantage has been taken of these strategic positions.

If we now turn to India, it will be seen that there are eight ports in which our shipping in Indian waters can seek protection; and there is only one foreign port, that of Saigon, which might be considered at all seriously.

During a naval war, with the Suez Canal closed—not an unlikely contingency—our Indian merchantmen would

make their way to England by a series of rapid flights between defended ports. Thus Colombo would be the point of departure for Mauritius ; from Port Louis, Durban would be made ; thence, in comparative safety, via East London and Port Elizabeth, to Cape Town ; then Walfisch Bay to St. Helena, Ascension to Sierra Leone. Here the merchantmen should have arrived well within the waters commanded by the British fleet, and therefore the run to the British Isles will be open. The scene of operations of commerce-destroyers will more likely be in the waters deserted by our own warships, whose attention for the most part must be directed towards the enemy's home ports, and to those waters which will be the scene of decisive actions.

The engineer's dream of piercing the Isthmus of Panama is shortly to be realised. With the completion of the canal there arises the question of fortifying some of the Pacific Islands, notably Fanning Island, lying as it does midway between Australia and Central America. The Atlantic coast of South and Central America contains five fortified British ports ; the Pacific coasts have none. Under existing conditions, Australian and New Zealand shipping would take its final departure from Perth, as being the last defended port in that quarter, and make for Mauritius, and then follow the route to the Cape.

There are two main reasons why the resources of the oversea possessions should be examined in a discussion on sea-power. The first is to endeavour to arrive at the relative importance of the British colonies to a rival sea-power, and the second reason is to discover the place each possession occupies in relation to the mother country and to the sister possessions.

The strength and the nature of the population of Canada and its geographical position has placed that territory beyond the ambition of any European power. If, however, there was any sympathy in Canada itself with the United States, then there might be the possibility of a determined effort on the part of the neighbouring republic to annex

the Dominion in the event of the mother country losing the command of the sea. Last year the Dominion produced 5,000,000 bushels of wheat. The United Kingdom requires 100,000,000 cwt. of wheat each year; yet Canada only sent us 14·3 of the quantity imported. In the event of war, the United Kingdom might be absolutely dependent upon this possession for her existence. Canada can produce more wheat than would be required to keep the mother country. Canada, which should be looked upon as the granary of the empire, is strategically, with regard to the United Kingdom, the most favoured colony. The trade route from point to point lies well out on the high seas, and the distance between Quebec and Plymouth is 2620 miles, between Halifax and Plymouth 2430 miles. It is obvious that this, of all our inter-imperial trade routes, is the most easily protected during a naval war.

The encouragement, development, and expansion of the Canadian wheat and flour exports to England is not only the duty of imperial economists, but should be the first consideration of all defence bodies; in it lies the foundation of the empire's security. With the development of the Canadian wheat-supply there is removed from the problem of imperial defence its most knotty point; but there would still remain the question of the defence of the trade route that would be called upon to supply the forty-five millions of people of the United Kingdom with the means of living.

If it be accepted that the United Kingdom is the heart of the empire, that its fall means the disruption of the imperial fabric, and that this fall may be brought about by cutting off its food-supply or seriously interrupting it—or, in other words, that the empire may be dissolved by a humiliating peace forced upon us, not by a decisive battle, but by the cutting, for but a short time, of the main artery—then it must be acknowledged that the question of primary importance is the efficient defence of the Canadian route. There should not be any ambitious attempt to keep all our commercial routes open in time of war by naval protection, and by so doing weakening the more important

ones. By unreservedly accepting the short Canadian route as the main supply route, the vexed question of commerce protection is simplified. It is admitted by naval authorities that though the St. Vincent scheme of masking the enemy's fleets in their own ports be successfully adopted, it is certain that some fast cruisers will elude the vigilance of the blockading fleets and prey upon our commerce; and we also know that in official circles on the Continent it is freely admitted that this use of fast cruisers is a main plank in their naval plan of campaign.

The successful evasion of blockade by fast cruisers, though the blockaders have the command of the sea, was demonstrated in the Russo-Japanese War by the successful raids made by the Russian cruisers from Vladivostok. Such commerce-destroyers have a radius of 9000 miles, sufficient to cross the Atlantic and return. Now, by narrowing down the responsibility of our fleet for commerce protection to the guardianship of one short route from Quebec or Halifax to Plymouth, we greatly assist the fleet being able to preserve that all-important quality, compactness. This it would undoubtedly lose if called upon to protect half-a-dozen longer routes, parts of which would pass through the enemy's narrow waters and close to hostile ports, out of which torpedo boats would steal during night, and lie in wait for our merchantmen, in spite of the most effective blockade.

The nearest possible hostile port in European waters to the Canadian route would be Brest; therefore, in the most unlikely contingency of war between England and France, increased strength would be given to any British fleet blockading that port. The breadth of the English Channel from Brest to Devonport is but 147 miles; now, any cruisers evading the port blockades in any one of the French ports to the north-east of Brest would still have to pass the blockade of the latter port to escape from the Channel. At the Canadian end of the route there are the French possessions of Miquelon and St. Pierre; these islands have not as yet been placed in a state of defence. Had the growth of the Canadian wheat trade and its important

bearing upon the security of the United Kingdom been foreseen, it is probable that important cessions to France in other parts of the world would have been made in exchange for these islands.

We find that Canada is exceptionally rich in all raw materials which have an important bearing on modern sea-power. Coal, timber, manganese and other iron ores, nickel, and crude oil are obtainable in large quantities. The annual output of coal from Nova Scotia alone amounts to 5,500,000 tons. The Province of Ontario produces more than half the world's output of nickel; unfortunately the mines are controlled by an American trust. The same Province produces 28,000,000 gallons of crude oil per annum—an important fact when we consider that oil propulsion is making big strides.

The Dominion Iron and Steel Company's works are able to produce 1000 tons of Bessemer steel per diem, and most of the foundries in the Dominion are able to produce all kinds of marine-engine forgings and shaftings up to 30 inches in diameter. Under the stress of war the larger foundries could produce armour-plate and projectiles. The Dominion has for some time possessed its own arsenal, situated at Quebec, attached to which is a small-arms factory. There are no less than sixteen plants for the manufacture of explosives in various parts of the Dominion, all of which can turn out high-class propellents. The ports of Halifax, Sydney, and Esquimault have almost equal facilities for the refitting of a fleet as any port in Great Britain, and the country behind these harbours is rich in those natural facilities and raw materials so essential in support of sea-power.

Australians have been awakened to the presence of a possible danger by the Russo-Japanese War. Japan occupies a similar position in the East to that of Germany in the West. Both coming late upon the scene, find all available territory apportioned among older powers, and both nations must needs seek lands for a growing surplus of population. However eloquently sentimentalists may argue that the old order of things has changed, let us remember that

to-day might is right as truly as it was twenty centuries ago, and when the time comes—as it must—both Germany and Japan will endeavour to prove this; and then it will be for British sea-power to show that might is in the right. Australia, unlike Canada, may be the objective of a foreign sea-power, and the policy of the Commonwealth cannot be wrong if tinged with that suspicion; but here preparedness should be actuated by reason, and not by hysteria.

Like most of the important parts of the Empire, the Commonwealth is rich in one of the principal ingredients of sea-power—coal, the annual production being 12,000,000 tons. Iron ore, too, is found in large quantities. In the event of oil-fuel being used in the navy, Australian oil-shale fields will be of great value. There are foundries in New South Wales capable of forging steel shafts up to 30 inches in diameter. There are no less than eight factories in the Commonwealth for the manufacture of explosives; and a small-arms factory is now near completion, with a capacity of 15,000 rifles per annum. There is a graving-dock at Cockatoo Island capable of taking a vessel of the *Indomitable* class, and a still larger dock has just been completed at Fremantle.

Just as Japan naturally views Australia with longing eyes as a desirable territory for a surplus population, so does Germany regard South Africa. Of all Great Britain's possessions within the temperate and sub-tropical zone, there are none so sparsely populated with people of the British race as South Africa. It may be that a liberal immigration policy on the part of the Government of the Union will alter this regrettable fact, and thus add to its security from attack.

Simonstown, a naval dockyard, is heavily and efficiently fortified; Table Bay is also protected from anything less formidable than organised invasion. The coal of the Cape Colony is of an inferior quality; the colony is rich in timber and iron ores. There are two explosive factories in the Cape Colony.

The most important harbour in the Union is that of Durban, though not yet efficiently protected. The Admiralty have taken over Salisbury Island, which lies in the middle of the harbour. The Natal coal is equal to the best Welsh, and most suitable for naval consumption. The output last year was over 2,000,000 tons; but this is restricted by railway communication, a narrow-gauge (3 ft. 6 in.) single line having to carry the hinterland trade, as well as connecting the coal-fields, 218 to 268 miles from the port. The Union Government, in conjunction with the Admiralty, are contemplating the erection of a graving-dock capable of taking a super-Dreadnought. The harbour, approached by a narrow but deep entrance, commanded by high land, lends itself to impregnable defence, and in the event of naval war would serve as a harbour of refuge for the mercantile shipping off the east coast of Africa. Durban has all the means, under the stress of naval war, for the refitting of a fleet. Iron ore in large quantities is found in proximity to the port, and the largest explosive factory in the Union (Kynoch's) is within twelve miles of Durban. There are four foundries and some two thousand skilled mechanics at the port.

South Africa comes second to Canada in the part to be played in imperial defence. Whilst the one possession produces the staff of life, the other possession produces the medium of exchange by which that staff of life is obtained by the individual.

The mines of South Africa, mostly owned and controlled by German, French, and English Jews, and worked by negro labour imported from foreign possessions, and showing a death-rate up to sixty per thousand, are now producing one-third of the world's output of gold—that is, thirty-three millions sterling per annum comes from the South African mines. German and Austrian capital is directly or indirectly concerned in the working of these mines; and this influence is felt, gold being a magnet which always draws the worst passions of human nature within its sphere of influence. South Africa, with its small

population, must expect to be fought for by those powers whose cupidity has been aroused by its vast wealth, apart from the fact that South Africa, by reason of its being the wealthiest country in gold and precious stones in the world, is an object of envious desire on the part of a possible enemy of the mother country. This possession holds an important —in fact, a unique—position in imperial defence. The Cape commands the route to the East in the highly probable event of the Suez Canal being blocked. Moreover, it is the reserve upon which India and our other Eastern possessions must draw in the event of territorial war; it is Great Britain's half-way house to India. The Indian Mutiny proved the great value of the Cape in such a contingency as an Eastern war; for this reason alone South Africa must, for many years to come, carry a large imperial garrison. Then it must not be forgotten that South Africa is flanked by German territory, from which invasion is possible, though such could be of no permanency whilst Great Britain holds the command of the sea.

Should the evil day ever arrive when Great Britain, by the shortsightedness of her statesmen—for by that alone would it happen—lost the command of the sea, Canada might possibly, though recent events show how improbably, retain liberty as an independent nation. But not so South Africa or Australia; and the former would be the very first to become the possession of the new sea-power. South Africa may, as time goes on, develop a seafaring population; but the character of the country forbids even an appreciable proportion of the people following the sea for a livelihood. Hence South Africa can never, even if it grew to nationhood, hope to possess a navy sufficient to protect its large and rapidly increasing maritime interests. The defence policy of the Union should be to support British sea-power with all its natural resources, even though it may be distasteful to a section of the people, ever remembering that the liberty of South Africa can only be secured by the British navy.

CHAPTER XIV

MODERN SEA-POWER

Sea-power cannot be estimated by the number, size, power, or cost of ships and armament that a nation possesses, any more than the brain-power and ability of a man can be judged by his bulk or dress. History has demonstrated over and over again that it is not the biggest or most costly fleets that have been successful. The fireside critic who wrings his hands in dismay in anticipation of the certain defeat of his country because there is a reduction in the building programme of the navy, may be as wrong as his fellow who is gleeful and foresees certain success for his country on the seas because his particular Government has estimated for a considerable increase in warships. An endeavour has been made to show that sea-power is made up of numerous elements. It was so in the time of the galley, equally so in the days of wood and sail, and the only difference to-day is that one or two more elements have been added. What these are have been shown in the preceding pages.

In considering modern sea-power—that is, the sea-power of to-day—it will be well if we examine those nations that rank as such in the order of their importance. For over a century Great Britain has not been challenged on the high seas, though within the last decade a determined and serious challenge has been made in the dockyards of a foreign power. That challenge has been accepted, with the result that in number and power of ships Great Britain's superiority has apparently lessened—if sea-power rested in the size of the navy, one would say actually lessened. But whilst Germany has been rapidly increasing the number and power of her war vessels, and building naval canals

and dockyards, has she been strengthening other equally as important elements? This, unfortunately for her, has been impossible; yet for Great Britain these very elements have been naturally strengthening themselves. Her mercantile marine, the very backbone of sea-power, has within the last decade—that is, during the very period that Germany has pushed her naval programme—increased at a greater ratio than has that of Germany. The more important inventions have told more greatly in favour of British sea-power than in that of other nations. The colonies have rapidly increased in population, power, and importance; groups of self-governing colonies have united into small nations, and have assumed responsibility in defence, adding considerable strength, directly and indirectly, to the navy. The year 1910 saw the completion of a number of naval works in various parts of the empire, all of which go to strengthen the naval power of Great Britain, notably the dockyard extension and large dock at Simons Bay, the Colombo dock, the dockyard extension and large dock at Hong-Kong, the Malta breakwaters, and the enclosure of the Admiralty Harbour at Dover. What has Germany been able to do as an offset to this? She has only one dockyard outside of Europe, that of Kiao-chau.

It will be of interest to examine the naval bases and coaling-stations oversea of the primary sea-powers, for by this means Great Britain's superiority and continual lead will be more readily understood.

The list opposite gives practically all the foreign stations oversea, but it is in no way complete, and is only given for purposes of comparison. As British harbours are in every part of the world, only one port of each important possession has been given. On the first day of 1900 the German Emperor stated: "As my grandfather reorganised the army, so I shall reorganise my navy . . . that it may stand on the same level as my army." In ten years he has gone a long way towards putting his words into effect; and to do this he and his people had to overcome numerous physical difficulties which stood in the way of their country

Great Britain.	Germany.	France.	United States.
Atlantic			
Bermuda (*f.*)[1]	Kamerun	Dakar (*f.*)	Porto Rico
Halifax (*f.*), (*d.*)	Swakopmund	Loando	...
Sierra Leone (*f.*)	...	Konakry	...
Walfisch Bay	...	Guadeloupe (*f.*)	...
Kingston, J. (*f.*)	...	Martinique (*f.*)	...
St. Lucia (*f.*)	...	...	...
Simons Bay (*f.*), (*d.*)	...	...	...
Mediterranean			
Gibraltar (*f.*), (*d.*)	...	Ajaccio (*f.*)	...
Malta (*f.*), (*d.*)	...	Bonifacio (*f.*)	...
Cyprus	...	Bizerta (*f.*), (*d.*)	...
...	...	Algiers (*f.*), (*d.*)	...
...	...	Oran (*f.*)	...
Indian Ocean			
Aden (*f.*)	...	Djiboutil	...
Perim	...	Madagascar	...
Durban (*f.*), (*d.*)	Dar-es-Salaam	Reunion	...
Mauritius (*f.*)	...	Saigon	...
Colombo (*f.*), (*d.*)	...	...	...
Singapore (*f.*)	...	...	...
Penang (*f.*)	...	...	...
Labuan	...	...	...
Pacific			
Sydney (*f.*), (*d.*)	Apia	Noumea	Honolulu (*f.*), (*d.*)
King George Sound (*f.*)	...	Papeete	Tutudo
Auckland, N.Z. (*f.*)	...	...	Manilla (*f.*)
Esquimault (*f.*), (*d.*)	...	...	...
China Seas			
Hong-Kong (*f.*), (*d.*)	Kiao-chau (*f.*), (*d.*)	...	...
Wei-hai-wei	...	...	...

[1] (*f.*) Fortified, (*d.*) Dockyard.

becoming a sea-power. By the end of next year Germany will have launched seventeen warships of the Dreadnought type, and by that time Great Britain will only have a lead of three vessels of the same type. Germany's fleet will be concentrated and either based upon the North Sea, the Adriatic, or possibly upon, by that time, the Ægean. Germany's great handicap as a sea-power is due to the greater part of her coastline lying on the shores of the Baltic, where there are practically no harbours; and the few hundred miles of German coast on the North Sea is likewise inhospitable. Then she has had to labour under the great disadvantage of her coal and iron fields being far removed inland from such harbours as she possesses. In the case of Great Britain these essentials of sea-power are close to her shipbuilding yards and harbours.

The iron and coal of Germany has to be carried a distance of 450 miles, and even more, to reach the northern seaports; and the big naval yard at Danzig gets all its iron ore a distance of nearly a thousand miles.

Wilhelmshaven, on the North Sea, is Germany's chief naval base. Although an artificial harbour, approached through locks, it has three naval dockyards and three dry docks, capable of building and of docking vessels of the super-Dreadnought type.

An important factor in modern sea-power is the building capacity and facilities of the country. The natural advantages for so long enjoyed by Great Britain in this respect have in no way deteriorated, and she is still able to keep her lead in shipbuilding. It is authoritatively stated that the British shipbuilding firm of Elswick could deliver three battleships of the Dreadnought type in thirty months, and three such vessels in each succeeding fifteen months; and the same assurance has been made for the Barrow and the Sheffield shipbuilding yards. The principal shipbuilding firms of Germany—the Weser Company at Bremen, and the Vulcan Company at Stettin—state that each could build and deliver two battleships and two armoured cruisers

in thirty months. With regard to the ability of Germany to accelerate her rate of construction, it must be borne in mind that within the last five years throughout Germany extraordinary energy has been devoted to the increase of all resources bearing upon shipbuilding. In this respect private enterprise has been wisely fostered by the Government, and the principal firms now engaged in the construction of warships are: F. Schichau, at Danzig and Elbing; the Vulcan Company, with yards at Stettin and Hamburg; the Germania Yard and the Howaldt firm, Kiel; Messrs. Blohm & Voss, Hamburg; and the Weser Company at Bremen. In addition to these firms there are a number of private shipbuilding yards that have not yet undertaken the construction of warships, but are quite capable of doing so. The Krupp Company hold the monopoly for the supply of ordnance and armour, and to meet the growing demand of an increasing naval programme the works have increased their capacity, and are now able to supply the component parts of eight battleships per annum. The private firms engaged in the construction of gun-mountings and accessories in Great Britain are those of Armstrong, Vickers, and the Coventry Works. The first-named firm is capable of supplying and completing the armaments of three Dreadnoughts in two and a half years, and arming and equipping three Dreadnoughts every fifteen months thereafter. The Vickers firm can supply the artillery equipment complete for seven Dreadnoughts in three years. The Coventry Works are able to undertake the supply of the largest naval guns, with their mountings, at the rate of two and a half battleships per annum, after thirteen months from receipt of the order.

There is a growing tendency at the moment to estimate sea-power by the standard of battleships, and to neglect all other factors. This standard—a dangerous one to be guided by in estimating sea-power—shows that the relative position of the great maritime nations on 1st April 1915, will be as follows:

	Pre-Dreadnoughts.	Dreadnoughts.
Great Britain	38	22
Germany	21	17
France	13	10
Italy	8	4
Austria-Hungary	12	2
Japan	13	2

According to this estimate, on that date Great Britain should have lost the command of the sea to the triple alliance, for these powers will possess forty-one pre-Dreadnoughts to Great Britain's thirty-eight, and twenty-three Dreadnoughts to our twenty-two.

The German Navy Law of 1897 was a wise departure in naval policy, and it is one that is now being followed by other maritime powers. This law provided for a programme extending over several years, and it was mainly responsible for arousing the enthusiasm of the people in naval matters. In April 1898 a more ambitious programme was fixed by law, only to be followed two years later by the Navy Law of 1900. This has twice been amended, in 1906 and 1908. The amended programme, to be completed by 1920, stands as follows :—

Battle Fleet.—Two fleet flagships ; four squadrons, each of eight battleships ; eight large cruisers, and twenty-four small cruisers for scouting purposes.

Foreign Fleet.—Eight large and ten small cruisers.

Additional for Reserve.—Four battleships ; four large cruisers and four small cruisers.

Total number of Warships.—Thirty-eight battleships ; twenty large cruisers ; thirty-eight small cruisers ; 144 destroyers.

The number of submarines are not included in this programme, but are to be built out of special votes.

The amendment to this Act of 1908 made an important alteration in this programme by reducing the age limit of battleships, thus providing for a more effective machine.

A definite building programme, covering a period of years in advance, has numerous advantages. It assists to remove from party politics the discussion of a service whose efficiency and fighting value must suffer considerably by an annual wrangle. The indirect effect of this far-seeing policy upon Germany was considerable; it had an immediate influence upon the shipbuilding industry of the country. There was by the Navy Law some fixity of tenure guaranteed, and naturally the effect spread to subsidiary industries. The large labour classes were satisfied with the certainty of employment for a number of years. Hence those industries and callings upon which sea-power is dependent were established upon a sound and permanent basis, which cannot be the case in those countries whose naval building programmes are subject to sharp fluctuations each year.

"When the change of 1908 was made, Herr Bebel, the Socialist deputy, predicted that additional proposals would be made in or after 1912. The vast shipyards and the national industries will demand it, and the Navy Law has never been regarded as a limiting instrument." [1]

When comparing the naval strength of the various maritime nations, many writers of the day fail to give due prominence to the personnel that man and will have to fight these fleets. Some assert that as heavy-armoured vessels, armed with long-range guns, have revolutionised modern naval warfare, the improvements of mechanical appliances have reduced the importance of the personal equation, and that Great Britain no longer holds an advantage by reason of possessing a genuine seafaring population with a highly developed sea-sense. As the object of sea-power is action on the ocean, it should be obvious that the men most familiar with that element and its uncertain nature have the advantage. At least, the teaching

[1] *The Naval Annual*, 1910.

of history goes to show that this is so. The importance of inherent seamanship as a factor in modern sea-power was particularly noticeable at the battle of Tsushima. A Russian writer,[1] in writing in defence of the seamen of his country, and placing the blame for the Russian defeat entirely on the shoulders of the authorities, admits that when the fleet sailed from Libau the seamanship was indifferent, and that the personnel included admirals, commanders, and officers who had never studied naval history, nor naval strategy, nor modern naval tactics. These men had been brought up in an atmosphere of prejudice as to the unnecessary character of all this, and even contempt for naval history and any science whatever. As a reason for the tactical movements of the fleet proving bad, he states that "it is ages since there were any manœuvres."

The calm and confidence with which the Japanese fought their vessels in this battle was the result of inherent seamanship, added to which was the prestige of past success in naval action. And so it is with British sea-power to-day. The modern British sailor will go into action confident of success, for he has the prestige of centuries of success behind him. He cannot understand defeat, nor should he; he is only too anxious to emulate the fighting spirit his forefathers displayed at the repulse of the Armada, at the Nile, and at Trafalgar. And because he is doing so on the deck of an ironclad, propelled by steam, and fighting a long-range gun, will not lessen by one iota his determination to succeed. The German sailor will go into action quite uncertain of his commander, his comrades, and of himself; he has no naval history behind him, therefore nothing to live up to.

The only modern sea-power which has been, and is, the result of evolution is that of Great Britain. That of Germany, with no history behind it, is of the ready-made order, and has yet to be proved; that of France has ever been spasmodic.

This work has endeavoured to show that the building

[1] Captain Klado.

up of British sea-power has been continuous. Each step of development was taken from the preceding one. Apparently many of the acquisitions made in various parts of the world, which added to our sea-power, were made by accident; but these were so persistent that we must now admit that they were the result of a well-thought-out and definite plan made by various individuals in different generations, varying, it is true, in the development of details, yet actuated by the first thought of all Englishmen —the primary importance to their country of sea-power.

The sea-power of France, for instance, has had a most chequered career. It has never been of steady growth, solely because the people were never behind the naval policy of king, consul, emperor, or republic. The taxpayers were not taken into the confidence of the rulers, and therefore never intelligently understood the significance of sea-power.

Now, as the command of the sea has always held the balance of power in the world, and as this has always been held by a Western power, the sudden and dramatic appearance of an Eastern race as a potential sea-power is certain to exercise influence upon the naval policy of the United States. Modern sea-power differs from that of the last century, which was confined to Europe, by being the attributes of nations quartered in other parts of the world. Will the influence of these potential sea-powers be confined to their own latitudes? The teaching of history proves conclusively how impossible this is; the ramifications of commerce are so far-reaching. And as sooner or later commerce has to be backed up by either the moral or physical support of sea-power, it is impossible to lay down the confines within which sea-power can only exercise its influence.

It may be safely assumed that, had Japan not suddenly developed into a naval power, the United States would have been content with a fleet commensurate with its responsibilities in the south of the American continent. America's breach of the spirit of the Monroe doctrine by

the retention of the Philippines is fully justified if she hopes to rank as a modern sea-power.

As Great Britain commands the Caribbean Sea with the West Indies, so does the United States command the China Sea with this formidable chain of islands. With the completion of the Panama Canal, which will give absolute freedom of action to the American fleet, the value of the Philippines to their owners can hardly be exaggerated.

A slight examination of the history of Japan goes to prove the contention that sea-power is based upon certain well-defined principles, often hidden by extraneous growths, but, when once seen, easily traced. There are writers who quote Japanese naval power as of meteoric appearance from barbarism, forgetting that it can be traced back with certainty to A.D. 200, for in that year a large fleet transported an expeditionary force to Korea. In the twelfth and the thirteenth centuries Japan was the naval power of the East; the Emperor Yoritomo established his power by a great naval battle fought off Shimonoseki in A.D. 1180. The sea-power established by Yoritomo, and developed by his successors, saved Japan from invasion on more than one occasion. Towards the end of the thirteenth century an expeditionary force of 100,000 Mongols and Koreans endeavoured to invade the island kingdom—a close parallel to the Spanish Armada; for the Japanese in smaller vessels, but manned by capable seamen, met the invaders off the coast of Japan and defeated them. A gale springing up completed the destruction of the Mongol Armada. In the year 1621 the Government restricted the size of ships, the object being to check the tide of emigration of the Japanese; this prevented ocean trade, and cut Japan off from the outer world. For the next two and a half centuries her sea-power languished, and it was not until 1854 that foreign ships were allowed to enter Japanese ports; then followed commercial treaties with European nations. In 1868 the empire came into constitutional being, and the sea-sense of the people, for long restricted in action, was given full sway, and history gives no parallel

for such rapid development. Great Britain has played an important part in this remarkable awakening of a dormant sea-power, having placed competent naval instructors at the disposal of the Japanese Government, and allowing Japanese naval officers to receive training on British warships. The war with China (1894–95) showed the efficiency and power of the navy. The ten years of peace which followed were devoted to an ambitious but, as it proved, necessary building programme. This involved an expenditure of £34,000,000. Upon the outbreak of war with Russia the Japanese fleet consisted of :—

Battleships, first-class	6
Armoured cruisers, first-class	8
Cruisers (over 3000 tons) second-class	9
Cruisers, third-class	7
Slower effective ships	15
Torpedo gunboats and destroyers	20
Sea-going torpedo boats	41

This fleet was manned with a personnel of 28,000 of all ranks. The seamen, stokers, and artisans serve for a period of eight years on the active list, and four years on the reserve. They are recruited by voluntary service, but when necessary conscription is enforced to complete the authorised establishment.

Japan has all the natural resources required by a modern sea-power, and in this respect she ranks next, and very closely, to Great Britain. Being an island, her people are imbued with the sea-sense ; their war traditions are of the sea more than of the land. Being a commercial, manufacturing, and industrial people, their wares to and fro are sea-borne, necessitating an ever-growing mercantile marine, which in turn calls for naval protection. The coastline contains a number of fine natural harbours. Coal, the most important factor in modern naval warfare, is mined in abundance ; iron ore is also produced. There are naval dockyards at Yokosuka, Sasebo, Maizaru, and Kure. These yards have lately built, armed, and equipped the battleships *Kawachi* (20,800 tons), *Satsuma* (19,350 tons), and

Settsu (20,800 tons). The potentiality of Japanese sea-power lies in the remarkable natural resources available and the economic conditions of the people, which will enable the rapid and economical construction of warships. In Manchuria, Japan has a cheap source from which to draw unskilled labour, by means of which the raw material for ship construction—iron ore and coal—can be mined. Skilled labour in Japan is paid but 25 per cent. of what is paid in Europe.

Japan, like Germany, arriving late on the world's stage, finds that territory available for surplus population is divided among the older sea-powers, some of whom are now effete. A century too late to have secured Australia by discovery, a decade too late to have obtained the Philippines by conquest, will she content herself with an insular policy, allowing her surplus people to become aliens? Will she be the one exception that is to prove the rule of the historical teaching of sea-power?

Navies are costly instruments, and can never be kept long in the sheath without rusting. The Japanese navy, like that of Great Britain, has the prestige of victory, and that too of recent date, behind it. If, then, we carefully scrutinise the elements that go to make up modern sea-power, it must be honestly admitted that Japan ranks second only to Great Britain. The analogy between the two countries is remarkable—both a group of islands, both adjacent to continents, which circumstance has played an important part in the history of both island empires. The area of the British Isles is 121,391 square miles; the area of the Japanese islands is 147,655 square miles. Whilst the population of Great Britain is 46,000,000, that of Japan is 47,000,000. The constitutions of both countries—a limited monarchy—are almost identical in their working. The natural resources of Japan are similar to those of Great Britain, and are now having their influence upon the callings of the people. With the modern civilisation of China, in which the Japanese are playing a great part, there will arise a growing market for the products of the

industries and manufactories of Japan, which will increase her wealth and importance enormously. As her trade expands, new markets will be sought, and the commerce of the East will come in contact with that from the West.

As the naval wars between England and Holland were the direct result of commercial disputes, the future will, in all probability, see trouble between the modern sea-power of the East and the United States.

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